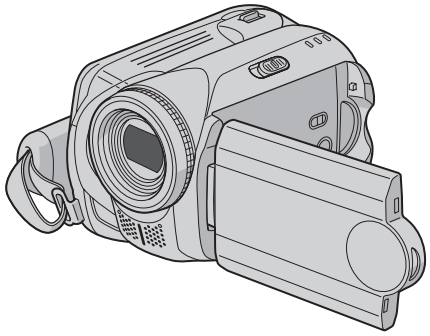
JVC

# SERVICE MANUAL

## HARD DISK CAMCORDER

# GZ-MG27US, GZ-MG37US, GZ-MG39UC



GZ-MG27USM [M6E335],
GZ-MG37USM, GZ-MG39UCM [M6E337]

Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

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No.YF133
2006/3

# PARTS LIST

## SAFETY PRECAUTION

**Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.**

## BEWARE OF BOGUS PARTS

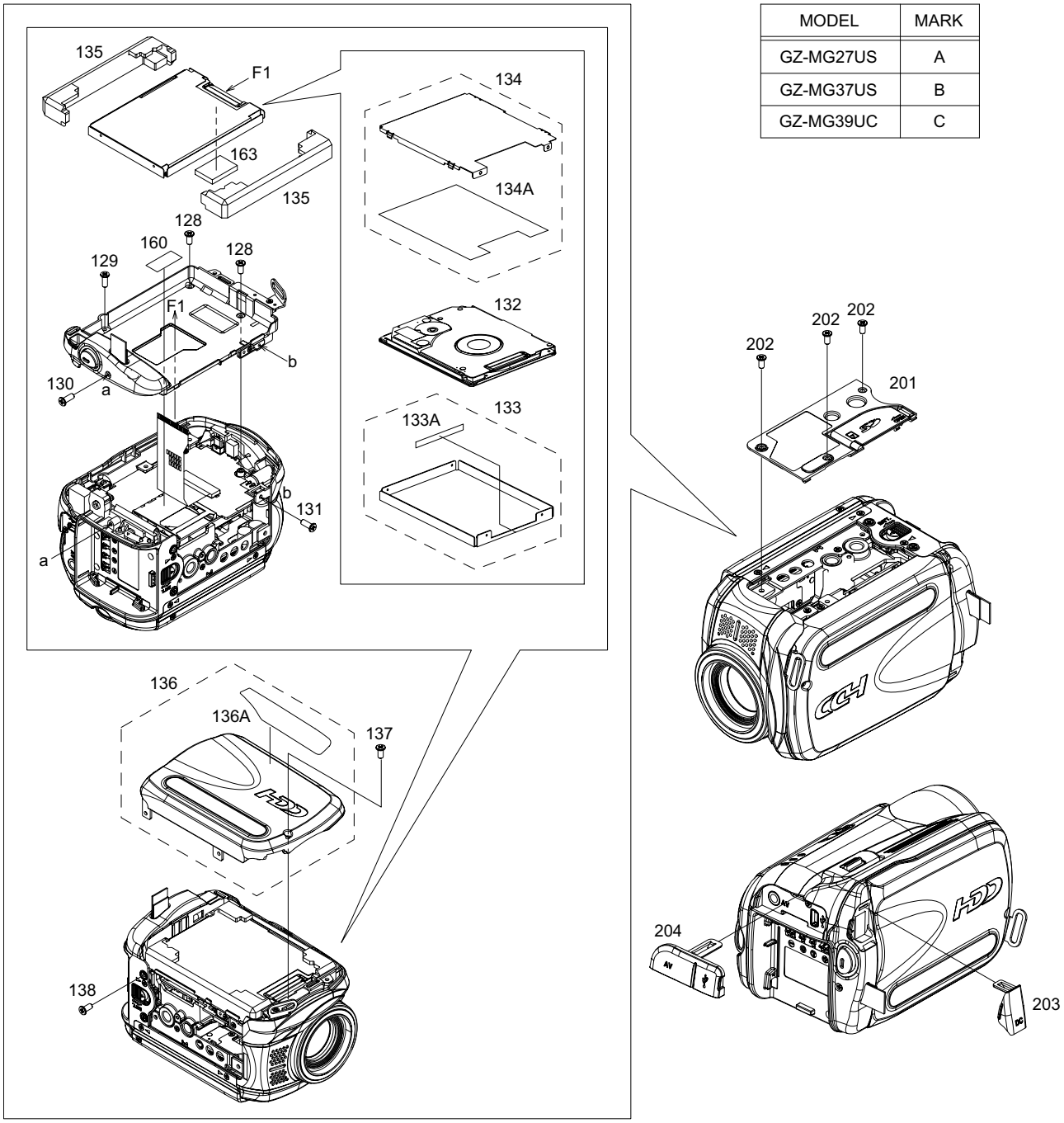
**Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.**

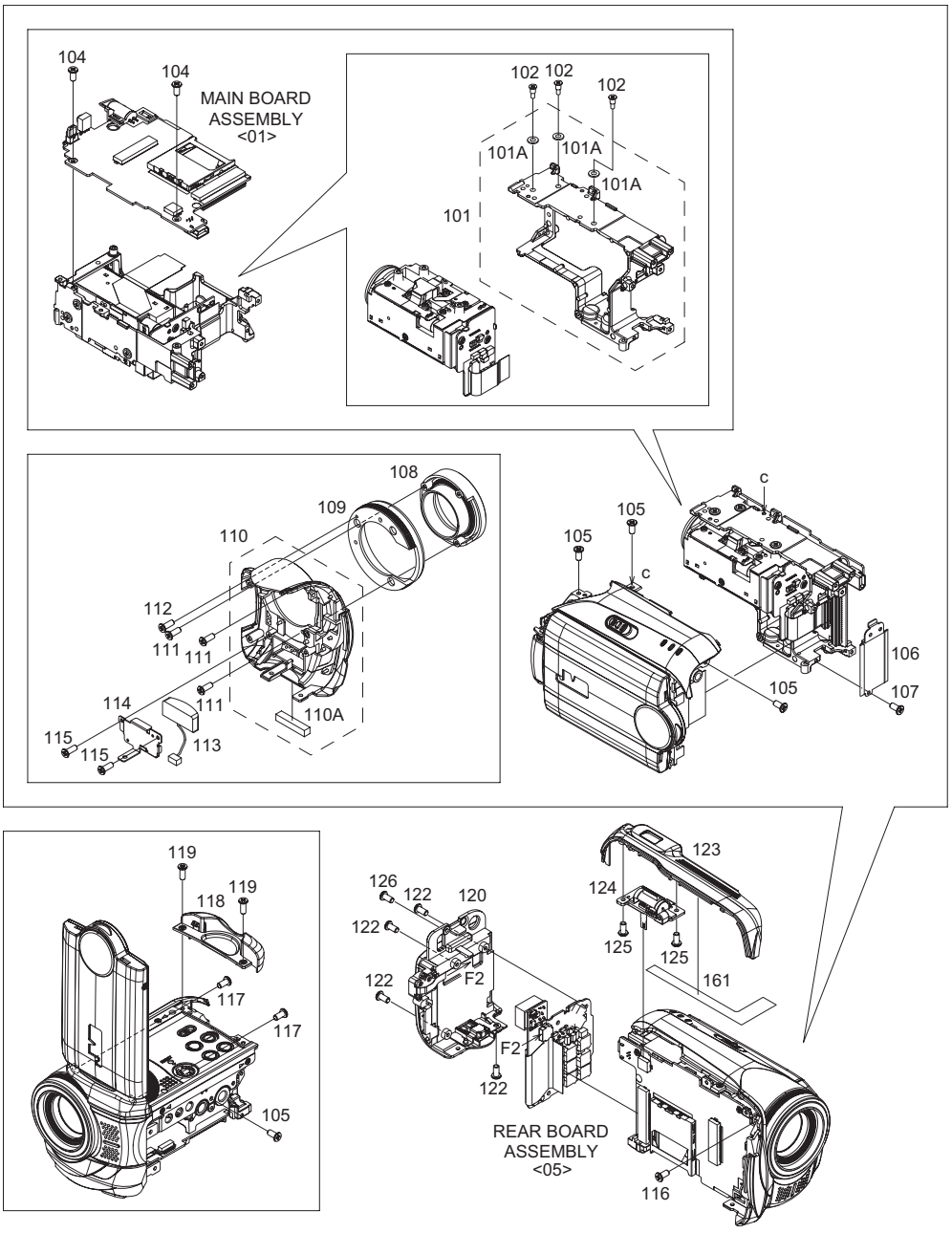
### 1. EXPLODED VIEW

### 1.1 FINAL ASSEMBLY<M1>

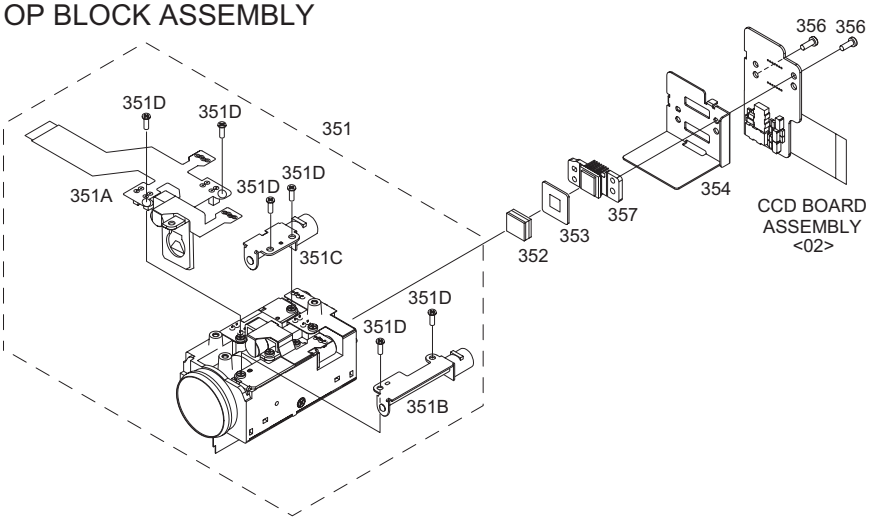
**The instruction manual to be provided with this product will differ according to the destination.**

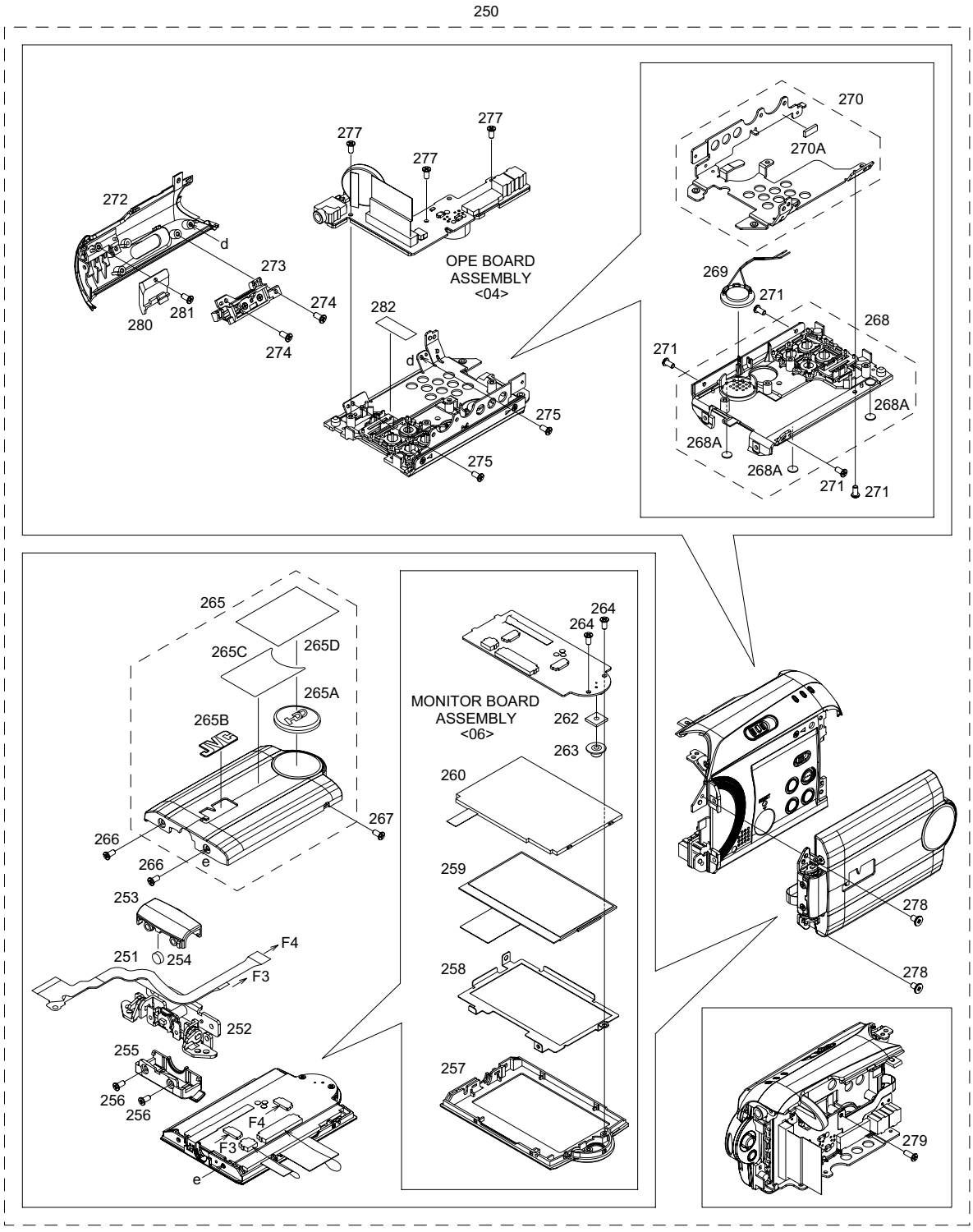
| MODEL | MARK |
|---|---|
| GZ-MG27US | A |
| GZ-MG37US | B |
| GZ-MG39UC | C |






## OP BLOCK ASSEMBLY




250
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OPE BOARD
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MONITOR BOARD
ASSEMBLY
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JVC
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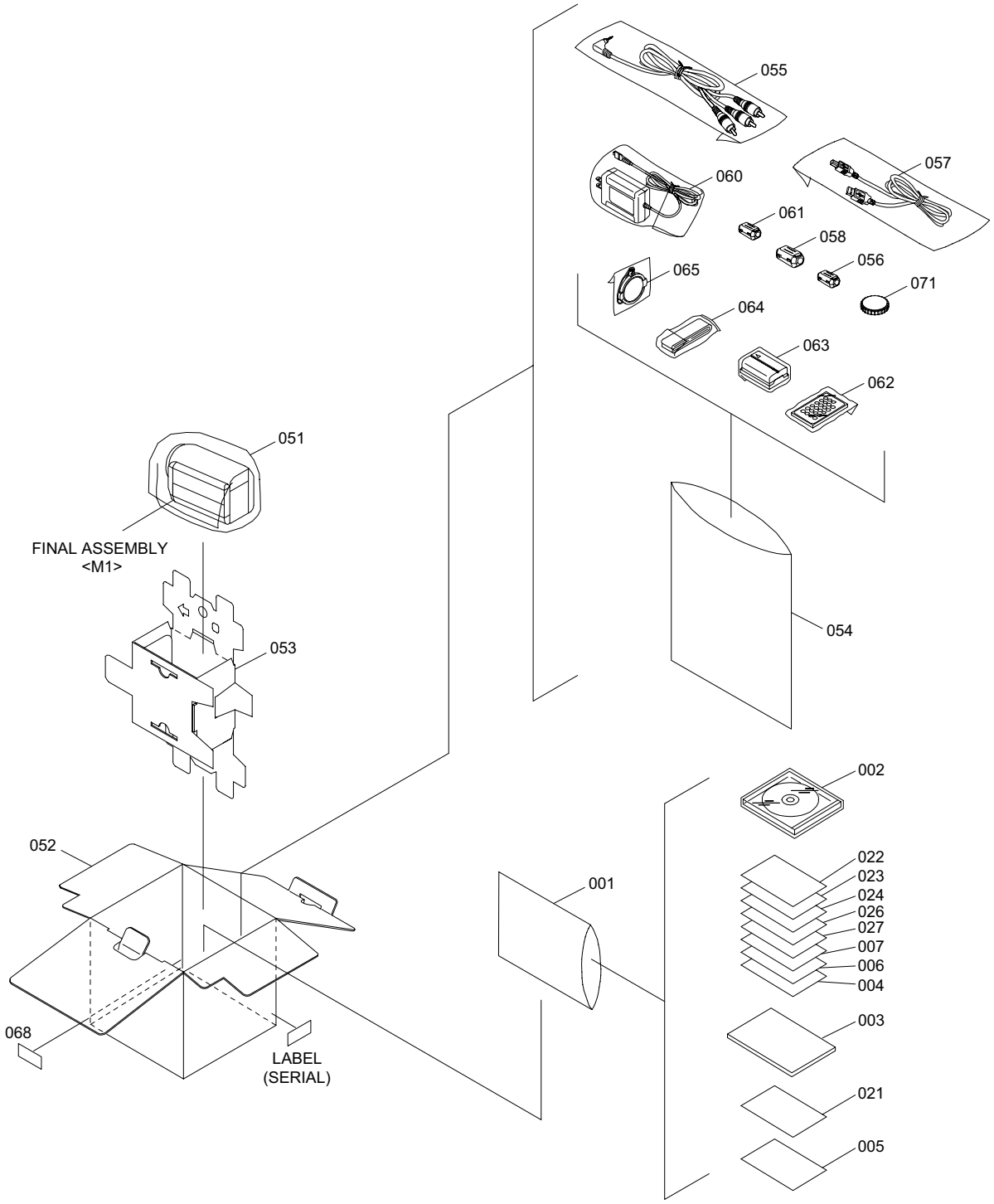
306

## 1.2 PACKING AND ACCESSORY ASSEMBLY <M5>



| MODEL | MARK |
|---|---|
| GZ-MG27US | A |
| GZ-MG37US | B |
| GZ-MG39UC | C |

## 2. PARTS LIST

### FINAL ASSEMBLY <M1>

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| 101 | LY35263-001B | FRAME ASSY | | |
| 101A | LY34799-002A | BUSH | (x3) | |
| 102 | LY30032-021A | SPECIAL SCREW | FRM-OP(x3) | |
| 104 | LY30031-0K7A | SPECIAL SCREW | MAIN-FRM(x2) | |
| 105 | LY30031-0K7A | SPECIAL SCREW | UPPER-FRM(x4) | |
| 106 | LY35256-001A | SHIELD(FRAME) | | |
| 107 | LY30031-0K7A | SPECIAL SCREW | SHIELD-FRM | |
| 108 | LY35262-001A | HOOD | | |
| 109 | LY35237-001B | RING | | |
| 110 | LY35228-001C | F.COVER ASSY | | |
| 110A | LY30035-031A | SPACER(A) | | |
| 111 | LY30031-0L8B | SPECIAL SCREW | FRONT-HOOD(x3) | |
| 112 | LY30031-0K7A | SPECIAL SCREW | FRONT-RING | |
| 113 | LY35303-001A | MIC | | |
| 114 | LY35268-001A | BKT(MIC) | | |
| 115 | LY30031-0L8B | SPECIAL SCREW | BKT(MIC-FR)(x2) | |
| 116 | LY30031-0K7A | SPECIAL SCREW | FRONT-FRM | |
| 117 | LY30031-038A | SPECIAL SCREW | UPPER-FRON(x2) | |
| 118 | LY35215-001C | M.L.CASE ASSY | | |
| 119 | LY30031-0L8B | SPECIAL SCREW | MLOCK-UPPE(x2) | |
| ⚠ 120 | LY21491-001C | REAR UNIT | | |
| 122 | LY30031-0K7A | SPECIAL SCREW | REAR-FRM(x4) | |
| 123 | LY21485-001A | TOP COVER(ZOOM) | | |
| 124 | LY34990-001E | ZOOM UNIT | | |
| 125 | LY30031-0L8B | SPECIAL SCREW | ZOOM-TOP(Z)(x2) | |
| 126 | LY30031-0K7A | SPECIAL SCREW | TOP(Z)-FRM | |
| 128 | LY30031-0K7A | SPECIAL SCREW | HCASE-FRM(x2) | |
| 129 | LY30031-0L8B | SPECIAL SCREW | HCASE-ZOOM | |
| 130 | LY30031-0L8B | SPECIAL SCREW | HCASE-REAR | |
| 131 | LY30031-0K7A | SPECIAL SCREW | FRONT-HCAS | |
| 132 | QAL0885-001 | HDD | 20G | A |
| 132 | QAL0885-002 | HDD | 30G | B,C |
| 133 | LY35388-001B | BKT(HDD)U ASSY | | |
| 133A | LY30035-033A | SPACER(A) | | |
| 134 | LY35243-001A | BKT(HDD)ASSY | | |
| 134A | LY35244-001A | SHEET(HDD) | | |
| 135 | LY35245-001A | GEL | (x2) | |
| 136 | LY35246-003B | HDD COVER ASSY | | |
| 136A | LY35312-001A | STICKER(HDD) | | |
| 137 | LY30031-0K7A | SPECIAL SCREW | HCOV-HOOK | |
| 138 | LY30031-0K7A | SPECIAL SCREW | REAR(B-FRM) | |
| 160 | LY34189-018A | GASCKET | SD | |
| 161 | LY45202-001A | SHIELD(ZOOM) | | |
| 163 | LY34189-020A | GASCKET | FPC | |
| 201 | LY35247-001B | B.COVER ASSY | | |
| 202 | LY30031-0K7A | SPECIAL SCREW | BOTTOM(x3) | |
| 203 | LY35239-001A | JACK COVER(DC) | | |
| 204 | LY35233-001A | JACK COVER(REAR) | | |
| 250 | UU06E3W07K | U.UNIT ASSY | FOR JAPAN | A |
| 250 | UU06E3W01A | U.UNIT ASSY | FOR JAPAN | B,C |
| 251 | QAL0806-001 | FPC | MONI-OPE | |
| 252 | LY35075-001A | HINGE UNIT | YEM | |
| 253 | LY35219-001C | HINGE COVER(U) | | |
| 254 | LY43413-001A | P.C.MAGNET | | |
| 255 | LY35220-001C | HINGE COVER(L) | | |
| 256 | LY30031-0K7A | SPECIAL SCREW | HCOV-HINGE(x2) | |
| 257 | LY35213-001C | MONI.CASE ASSY | | |
| 258 | LY21475-001B | LCD BKT(WIDE) | 16:9 | |
| 259 | QLD0417-001 | LCD MODULE | 16:9 | |
| 260 | QLL0178-002 | BACK LIGHT | 16:9 | |
| 262 | LY45193-001A | SPACER(CURSOL) | | |
| 263 | LY45166-001C | KNOB(CURSOL) | | |
| 264 | LY30031-0L8B | SPECIAL SCREW | PWB-M.CASE(x2) | |
| 265 | LY35221-017D | MONI.COVER ASSY | | A |
| 265 | LY35221-001D | MONI.COVER ASSY | | B,C |
| 265A | LY45165-001A | MARK(HDD) | | |
| 265B | LY45126-001B | JVC MARK | | |
| 265C | LY35260-002A | STICKER | | A |
| 265C | LY35260-001A | STICKER | | B,C |
| 265D | LY45216-001A | PROTECT SHEET | | |
| 266 | LY30031-0K6A | SPECIAL SCREW | MCOV-HINGE(x2) | |
| 267 | LY30031-0K7A | SPECIAL SCREW | MCOV-LBKT | |
| 268 | LY21478-001D | U.CASE ASSY | | |
| 268A | LY42350-001A | FOOT | (x3) | |
| 269 | QAS0429-001 | SPEAKER | | |
| 270 | LY35416-001A | BKT(UPPER)ASSY | | |
| 270A | LY30035-039A | SPACER(A) | | |
| 271 | LY30031-0K7A | SPECIAL SCREW | UC-BKT(U)(x4) | |
| 272 | LY35234-001A | T.COVER(U) ASSY | | |
| 273 | LY35224-001C | POWER SW ASSY | | |
| 274 | LY30031-0L8B | SPECIAL SCREW | POW-TOP(U)(x2) | |
| 275 | LY30031-0L8B | SPECIAL SCREW | BKT(U-TOP)(x2) | |
| 277 | LY30031-0L8B | SPECIAL SCREW | PWB-UPPER(x3) | |
| 278 | LY30031-0K6A | SPECIAL SCREW | HING-BKT(U)(x2) | |
| 279 | LY30031-0L8B | SPECIAL SCREW | FPC-UPPER | |
| 280 | LY35236-001A | INTERRUPTER | | |
| 281 | LY30031-0L8B | SPECIAL SCREW | INTER-TOP | |
| 282 | LY45112-001A | HEAT SHEET | | |
| ⚠ 300 | CU06E301A | C(BELT)UNITASSY | FOR JAPAN | |
| ⚠ 301 | LY35238-001C | HDD CASE ASSY | | |
| 301A | LY35022-201A | BKT(BOTTOM) | | |
| 301B | LY35241-001A | HOOK(G.B) | | |
| 301C | LY30031-0L6A | SPECIAL SCREW | BKT(BTM) | |
| 301D | LY30031-0L6A | SPECIAL SCREW | HOOK | |
| 302 | LY21416-001B | GRIP BELT | | |
| 303 | LY34997-001A | SHAFT(G.B) | | |
| 304 | LY35240-001B | BUTTON(TRIG) | | |
| 305 | LY35242-001B | HOLDER(SHAFT) | | |
| 306 | LY30031-0L8B | SPECIAL SCREW | HOLDER(SH)(x2) | |
| 351 | LY35161-002A | OP BLOCK ASSY | | |
| 351A | PTY35161-206 | AUTO IRIS UNIT | | |
| 351B | PTY35161-101 | ZOOM MOTOR UNIT | | |
| 351C | PTY35161-102 | FOCUS MOTOR UNIT | | |
| 351D | PTY35161-535 | TAPPING SCREW | (x6) | |
| 352 | LY45144-001A | OPTICAL LPF | | |
| 353 | LY45175-001A | SHEET | | |
| 354 | LY35257-001A-ML | SHIELD CCD | JPN | |
| 356 | LY30031-0J7A | SPECIAL SCREW | (x2) | |
| 357 | LYH30667-001A | CCD BASE ASSY | | |

### PACKING AND ACCESSORY ASSEMBLY <M5>

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| 001 | LY34452-001A | POLY BAG | DOCUMENT | |
| 002 | LY35273-002A-S | CD ROM ASSY | | |
| ⚠ 003 | LYT1533-001B | INST BOOK(EN) | (ENGLISH) | A,B |
| ⚠ 003 | LYT1533-002B | INST BOOK(FR) | (FRENCH) | A,B |
| ⚠ 003 | LYT1533-003B | INST BOOK(SP) | (SPANISH) | A,B |
| ⚠ 003 | LYT1548-001A | INST BOOK(EN) | (ENGLISH) | C |
| ⚠ 003 | LYT1548-002A | INST BOOK(FR) | (FRENCH) | C |
| 004 | LYT1534-001A | INST BOOK(SOFT.ENFRSP) | (SOFT.ENGLISH FRENCH SPANISH) | A,B |
| 004 | LYT1534-010A | INST BOOK(SOFT.ENFR) | (SOFT.ENGLISH FRENCH) | C |
| 005 | ---------- | WARRANTY CARD | BT-51005-9 | |
| 006 | BT-51034-2 | REGI. CARD | | |
| 007 | ---------- | WARRANTY CARD | BT-52006-2 | |
| 021 | LY35385-001A | SHEET(ACC GUIDE) | | A,B |
| 021 | LY35385-004A | SHEET(ACC GUIDE) | | C |
| 022 | LYT1600-001A | SHEET(DVD.W.EN) | | |
| 022 | LYT1600-003A | SHEET(DVD.W.FR) | | |
| 022 | LYT1600-005A | SHEET(DVD.W.SP) | | A,B |
| 022 | LYT1601-005A | SHEET(DVD.M.SP) | | A,B |
| 023 | LYT1601-001A | SHEET(DVD.M.EN) | | |
| 023 | LYT1601-003A | SHEET(DVD.M.FR) | | |
| 024 | LYT1603-001A | SHEET(DEMO) | | |
| 026 | LYT1602-001A | SHEET(ATT.EN) | | |
| 026 | LYT1602-003A | SHEET(ATT.FR) | | |
| 026 | LYT1602-005A | SHEET(ATT.SP) | | A,B |
| 027 | LYT1607-001A | SHEET(ATT.) | | |
| 051 | LY30023-034A | POLY BAG | FOR JVM | |
| 052 | LY35251-003A | PACKING CASE | PRODUCTION | |
| 053 | LY21420-001A | CUSHION | | |
| 054 | QPA02503505P | POLY BAG | ACC. 25cm x 35cm | |
| 055 | QAM0507-001 | A/V CABLE | | |
| 056 | QQR0918-004 | CORE FILTER | AV | |
| 057 | QAM0719-001 | USB CABLE | | |
| 058 | QQR0491-004 | CORE FILTER | USB 1T | |
| ⚠ 060 | LY21103-001D | AC ADAPTER | AP-V14U | |

| MODEL | MARK |
|---|---|
| GZ-MG27US | A |
| GZ-MG37US | B |
| GZ-MG39UC | C |

| ⚠ Symbol No. | | Part No. | Part Name | Description | Local |
|---|---|---|---|---|---|
| ⚠ 060 | or | LY21456-001A | AC ADAPTER | AP-V18U | |
| 061 | | QQR0917-004 | CORE FILTER | DC | |
| 062 | | LY21430-002A | REMOTE CTL UNIT | RM-V730US | |
| ⚠ 063 | | LY34647-002B | BATTERY PACK | BN-VF707U | A,B |
| ⚠ 063 | | LY34648-002A | BATTERY PACK | BN-VF714U | C |
| 064 | | LY21397-002A | SHOULDER STRAP | | |
| 065 | | LY34811-001B | HOOD CAP ASSY | | |
| 068 | | LY45161-002A | LABEL | | |
| 071 | | LY45189-001A | LENS PROTECTOR | | C |

## MAIN BOARD ASSEMBLY <01>

| ⚠ Symbol No. | | Part No. | Part Name | Description | Local |
|---|---|---|---|---|---|
| PW1 | | LYA10066-01E | MAIN BOARD ASSY | | |
| IC121 | | NAL0035-001X | SHOCK SENSOR | | |
| IC171 | | KSM-2003LN2E | IR DETECT UNIT | | |
| IC1001 | | MN102H60GJD | IC(MICRO C ROM) | MASK | |
| IC1001 | or | MN102HF60GJD | IC(MICRO C ROM) | MP FLASH | |
| IC1002 | | RS5C314-X | IC | | |
| IC1003 | | S-80827CNNB-G-W | IC | | |
| IC1004 | | SN74AHC1G08DC-X | IC(DIGITAL) | | |
| IC1004 | or | 74AHC1G08GW-X | IC | | |
| IC1004 | or | TC7SH08FU-X | IC(DIGITAL) | | |
| IC1005 | | SN74AHC1G04DC-X | IC(DIGITAL) | | |
| IC1005 | or | TC7SH04FU-X | IC(DIGITAL) | | |
| IC1007 | | TC75S56FU-X | IC | | |
| IC1007 | or | NJU7108F3-X | IC | | |
| IC2201 | | AK4660VQ | IC | 48P0.5 | |
| IC2201 | or | AK4664VQ | IC | | |
| IC3001 | | UPD61152F1-A03 | IC(MICRO C ROM) | | |
| IC3002 | | K4S28323LF-HN75 | IC | 128M 32BIT | |
| IC3201 | | JCP8075 | IC | | |
| IC3202 | | MB90099PFV139EX | IC(MICRO C ROM) | | |
| IC3204 | | R1100D251C-X | IC | | |
| IC3701 | | BH7612FV-X | IC | | |
| IC4001 | | SIP1280ISD-DVA3 | IC | | |
| IC4001 | or | SIP1280ISD-DVA2 | IC | | |
| IC4201 | | NN12072A-X | IC | TG/CDS/AD | |
| IC4301 | | SP32J55BFI12D03 | IC(MICRO C ROM) | 4M FLASH | |
| IC4302 | | 39VF1674CB3KF03 | IC(MICRO C ROM) | 2M FLASH | |
| IC4303 | | K4S56323LF-HN75 | IC | 256M FBGA | |
| IC4304 | | R1114N251B-X | IC | SREG2.5V | |
| IC4401 | | JCY0231 | IC | STD SELL | |
| IC4403 | | MM3142FN-X | IC | 2.5V REG | |
| IC4501 | | JCY0209-2 | IC | PREPROCESS | |
| IC4502 | | M95320-WDW6-X | IC | EEPROM | |
| IC4901 | | JCY0223-X | IC | | |
| IC8301 | | JCY0225 | IC | EPSON | |
| IC8302 | | TPS2055AD-X | IC | USB POWER | |
| IC8303 | | R1114N181B-X | IC | SREG 1.8V | |
| Q171 | | RPM-22PB | PHOTO TRANSISTOR | | |
| Q421 | | UMZ1N-W | PAIR TRANSISTOR | LIGHT LED | |
| Q421 | or | PUMZ1-W | PAIR TRANSISTOR | LIGHT LED | |
| Q421 | or | XP4601-W | PAIR TRANSISTOR | LIGHT LED | |
| Q422 | | DTC143XE-X | DIGI TRANSISTOR | LIGHT LED | |
| Q422 | or | UN921FJ-X | DIGI TRANSISTOR | LIGHT LED | |
| Q422 | or | KRC419E-X | DIGI TRANSISTOR | LIGHT LED | |
| Q422 | or | RT1N432U-X | DIGI TRANSISTOR | LIGHT LED | |
| Q1001 | | DTC124EE-X | DIGI TRANSISTOR | | |
| Q1002 | | 2SC4617/RS/-X | TRANSISTOR | | |
| Q1002 | or | 2SD2216J/RS/-X | TRANSISTOR | | |
| Q1002 | or | BC847BT-X | TRANSISTOR | | |
| Q1003 | | DTA124EE-X | DIGI TRANSISTOR | | |
| Q1004 | | 2SC4617/RS/-X | TRANSISTOR | | |
| Q1004 | or | 2SD2216J/RS/-X | TRANSISTOR | | |
| Q1004 | or | BC847BT-X | TRANSISTOR | | |
| Q1005 | | 2SJ347-X | MOS FET | | |
| Q1006 | | DTA124EE-X | DIGI TRANSISTOR | | |
| Q2202 | | UMX18N-W | PAIR TRANSISTOR | | |
| Q2401 | | 2SC4617/QR/-X | TRANSISTOR | | |
| Q2401 | or | BC847BT-X | TRANSISTOR | | |
| Q2403 | | 2SC4617/QR/-X | TRANSISTOR | | |
| Q2403 | or | BC847BT-X | TRANSISTOR | | |
| Q3202 | | 2SC4617/QR/-X | TRANSISTOR | | |
| Q3202 | or | BC847BT-X | TRANSISTOR | | |
| Q3701 | | UMZ1N-W | PAIR TRANSISTOR | | |
| Q3701 | or | PUMZ1-W | PAIR TRANSISTOR | | |
| Q3701 | or | XP4601-W | PAIR TRANSISTOR | | |
| Q4001 | | 2SC4617/RS/-X | TRANSISTOR | | |
| Q4001 | or | BC847BT-X | TRANSISTOR | | |
| Q4001 | or | 2SD2216J/RS/-X | TRANSISTOR | | |
| Q7801 | | UMX1N-W | PAIR TRANSISTOR | | |
| Q7801 | or | BC847S-X | PAIR TRANSISTOR | | |
| Q7801 | or | PUMX1-W | PAIR TRANSISTOR | | |
| Q7801 | or | XP4501-W | PAIR TRANSISTOR | | |
| Q7802 | | UMX1N-W | PAIR TRANSISTOR | | |
| Q7802 | or | BC847S-X | PAIR TRANSISTOR | | |
| Q7802 | or | PUMX1-W | PAIR TRANSISTOR | | |
| Q7802 | or | XP4501-W | PAIR TRANSISTOR | | |
| Q7803 | | UMX1N-W | PAIR TRANSISTOR | | |
| Q7803 | or | BC847S-X | PAIR TRANSISTOR | | |
| Q7803 | or | PUMX1-W | PAIR TRANSISTOR | | |
| Q7803 | or | XP4501-W | PAIR TRANSISTOR | | |
| Q8303 | | EMD2-W | PAIR TRANSISTOR | | |
| ⚠ D191 | | RB715W-X | SB DIODE | | |
| D421 | | NSPW500CS/C0TU/ | LED | | LIGHT LED |
| D1001 | | DA221-X | SI DIODE | | |
| D1002 | | 1SS376-X | SI DIODE | | |
| D3701 | | UMZ6.8EN-W | Z DIODE | | |
| D4003 | | 1SS376-X | SI DIODE | | |
| D4201 | | 1SS355-X | SI DIODE | | |
| D4201 | or | MA111-X | SI DIODE | | |
| D4201 | or | 1SS352-X | SI DIODE | | |
| C111 | | NBE40JM-476X | TA E CAPACITOR | 47uF 6.3V M | |
| C122 | | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C141 | | NBE20JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C142 | | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C171 | | NBE20JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C172 | | NBE20JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C1001 | | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C1004 | | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C1005 | | NBE20JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C1006 | | NDCA1HJ-7R0W | C CAPACITOR | 7pF 50V J | |
| C1008 | | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C1013 | | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C1014 | | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C1015 | | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C1016 | | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C1017 | | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C1018 | | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C1020 | | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C1025 | | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C1026 | | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C1031 | | NCF31AZ-105X | C CAPACITOR | 1uF 10V Z | |
| C1034 | | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C1043 | | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C1044 | | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C1045 | | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C1046 | | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C2202 | | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C2203 | | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C2204 | | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C2205 | | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C2209 | | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C2210 | | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C2217 | | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C2218 | | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C2223 | | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C2224 | | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C2401 | | NBE20JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C2402 | | NBE20JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C2403 | | NBE20JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C2404 | | NBE20JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C2405 | | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C2406 | | NBE20JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C2603 | | NCBA1CK-223W | C CAPACITOR | 0.022uF 16V K | |
| C2604 | | NCBA1CK-223W | C CAPACITOR | 0.022uF 16V K | |
| C2605 | | NCBA1EK-472W | C CAPACITOR | 4700pF 25V K | |
| C2606 | | NCBA1EK-472W | C CAPACITOR | 4700pF 25V K | |

| MODEL | MARK |
|---|---|
| GZ-MG27US | A |
| GZ-MG37US | B |
| GZ-MG39UC | C |

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| C2611 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C2612 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C2613 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C2623 | NDCA1HJ-100W | C CAPACITOR | 10pF 50V J | |
| C2624 | NDCA1HJ-100W | C CAPACITOR | 10pF 50V J | |
| C2655 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C2656 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3004 | NBE20JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C3005 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3006 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C3007 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C3008 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3009 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3010 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3011 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C3012 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3013 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C3014 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3015 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C3016 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3019 | NCB20JM-475X | C CAPACITOR | 4.7uF 6.3V M | |
| C3020 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C3021 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3022 | NCBA1HK-102W | C CAPACITOR | 1000pF 50V K | |
| C3023 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3024 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C3201 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C3202 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C3203 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C3204 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C3205 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3206 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3207 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C3208 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C3209 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3210 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3211 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C3212 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| C3216 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3217 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3218 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C3219 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3220 | NCB20JM-475X | C CAPACITOR | 4.7uF 6.3V M | |
| C3224 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C3225 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C3227 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C3701 | NBE20JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C3702 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C3703 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C3704 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C3705 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4002 | NBE20JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C4003 | NBE20JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C4004 | NBE20GM-476X | TA E CAPACITOR | 47uF 4V M | |
| C4010 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4011 | NCBA1HK-102W | C CAPACITOR | 1000pF 50V K | |
| C4012 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4013 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4014 | NCBA1HK-102W | C CAPACITOR | 1000pF 50V K | |
| C4015 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4016 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4017 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4018 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4019 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4020 | NCBA1HK-102W | C CAPACITOR | 1000pF 50V K | |
| C4021 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4022 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4023 | NCBA1HK-102W | C CAPACITOR | 1000pF 50V K | |
| C4024 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4025 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4026 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4027 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4032 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4034 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4201 | NCB11EK-105X | C CAPACITOR | 1uF 25V K | |
| C4202 | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K | |
| C4203 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C4204 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| C4205 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C4206 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4208 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C4209 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C4210 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C4211 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4212 | NCB20JM-475X | C CAPACITOR | 4.7uF 6.3V M | |
| C4213 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4214 | NDCA1HJ-8R0W | C CAPACITOR | 8pF 50V J | |
| C4215 | NDCA1HJ-180W | C CAPACITOR | 18pF 50V J | |
| C4216 | NCB11CK-475X | C CAPACITOR | 4.7uF 16V K | |
| C4217 | NBP21CM-106X | TA E CAPACITOR | 10uF 16V M | |
| C4218 | NCB20JM-475X | C CAPACITOR | 4.7uF 6.3V M | |
| C4219 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4220 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4221 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4224 | NBE20JM-476X | TA E CAPACITOR | 47uF 6.3V M | |
| C4225 | NDCA1HJ-100W | C CAPACITOR | 10pF 50V J | |
| C4301 | NCB20JM-475X | C CAPACITOR | 4.7uF 6.3V M | |
| C4302 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4303 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4305 | NCB20JM-475X | C CAPACITOR | 4.7uF 6.3V M | |
| C4306 | NCBA1HK-102W | C CAPACITOR | 1000pF 50V K | |
| C4307 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4308 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4309 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4310 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4351 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C4352 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C4401 | NCB20JM-475X | C CAPACITOR | 4.7uF 6.3V M | |
| C4402 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4403 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4404 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4405 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4406 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4407 | NCB20JM-475X | C CAPACITOR | 4.7uF 6.3V M | |
| C4411 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C4412 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C4501 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4503 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4504 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4505 | NCB20JM-475X | C CAPACITOR | 4.7uF 6.3V M | |
| C4506 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4507 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4510 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4511 | NCB20JM-475X | C CAPACITOR | 4.7uF 6.3V M | |
| C4513 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4514 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4517 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4518 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4519 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4521 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C4522 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4523 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4524 | NCB20JM-475X | C CAPACITOR | 4.7uF 6.3V M | |
| C4525 | NCB20JM-475X | C CAPACITOR | 4.7uF 6.3V M | |
| C4527 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4528 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4529 | NCB20JM-475X | C CAPACITOR | 4.7uF 6.3V M | |
| C4532 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4533 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4534 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4902 | NBE20JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C4903 | NBE21AM-106X | TA E CAPACITOR | 10uF 10V M | |
| C4905 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4906 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4907 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4908 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4909 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4911 | NDCA1HJ-101W | C CAPACITOR | 100pF 50V J | |
| C4912 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4913 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4914 | NDCA1HJ-680W | C CAPACITOR | 68pF 50V J | |
| C4915 | NDCA1HJ-121W | C CAPACITOR | 120pF 50V J | |
| C4916 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4921 | NCFA1AZ-474W | C CAPACITOR | 0.47uF 10V Z | |
| C4922 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4923 | NCB30JK-474X | C CAPACITOR | 0.47uF 6.3V K | |

| MODEL | MARK |
|---|---|
| GZ-MG27US | A |
| GZ-MG37US | B |
| GZ-MG39UC | C |

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| C4924 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C4925 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C4926 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4927 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C4932 | NBE21AM-106X | TA E CAPACITOR | 10uF 10V M | |
| C4935 | NBE21AM-106X | TA E CAPACITOR | 10uF 10V M | |
| C4936 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C4937 | NDCA1HJ-101W | C CAPACITOR | 100pF 50V J | |
| C7802 | NCB21CK-105X | C CAPACITOR | 1uF 16V K | |
| C7803 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C7804 | NCB21CK-105X | C CAPACITOR | 1uF 16V K | |
| C7805 | NCB21CK-105X | C CAPACITOR | 1uF 16V K | |
| C7806 | NCB21CK-105X | C CAPACITOR | 1uF 16V K | |
| C7852 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C8301 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8302 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8303 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8304 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8305 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8306 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8307 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8308 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8309 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8310 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8312 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8314 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8316 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8318 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8319 | NDCA1HJ-7R0W | C CAPACITOR | 7pF 50V J | |
| C8320 | NDCA1HJ-7R0W | C CAPACITOR | 7pF 50V J | |
| C8322 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8323 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8324 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8325 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8327 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8329 | NCB31AK-105X | C CAPACITOR | 1uF 10V K | |
| C8330 | NBE41AM-476X | TA E CAPACITOR | 47uF 10V M | |
| C8331 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C8333 | NCB31AK-105X | C CAPACITOR | 1uF 10V K | |
| C8334 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C8335 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C8337 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C8339 | NCB31AK-105X | C CAPACITOR | 1uF 10V K | |
| R101 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R141 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R142 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R143 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R144 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R145 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R146 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R147 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R148 | NRSA6AJ-220W | MG RESISTOR | 22Ω 1/16W J | |
| R149 | NRSA6AJ-220W | MG RESISTOR | 22Ω 1/16W J | |
| R150 | NRSA6AJ-220W | MG RESISTOR | 22Ω 1/16W J | |
| R151 | NRSA6AJ-220W | MG RESISTOR | 22Ω 1/16W J | |
| R167 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R169 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R170 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R171 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R172 | NRSA6AJ-332W | MG RESISTOR | 3.3kΩ 1/16W J | |
| ⚠ R191 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R196 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R197 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R198 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R421 | NRSA6AJ-152W | MG RESISTOR | 1.5kΩ 1/16W J | |
| R422 | NRSA6AJ-182W | MG RESISTOR | 1.8kΩ 1/16W J | |
| R423 | NRSA6AJ-391W | MG RESISTOR | 390Ω 1/16W J | |
| R424 | NRSA6AJ-220W | MG RESISTOR | 22Ω 1/16W J | |
| R1001 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R1003 | NRSA6AJ-222W | MG RESISTOR | 2.2kΩ 1/16W J | |
| R1004 | NRSA6AJ-222W | MG RESISTOR | 2.2kΩ 1/16W J | |
| R1005 | NRSA6AJ-222W | MG RESISTOR | 2.2kΩ 1/16W J | |
| R1006 | NRSA6AJ-472W | MG RESISTOR | 4.7kΩ 1/16W J | |
| R1007 | NRSA6AJ-472W | MG RESISTOR | 4.7kΩ 1/16W J | |
| R1008 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1009 | NRSA6AJ-681W | MG RESISTOR | 680Ω 1/16W J | |
| R1010 | NRSA6AJ-221W | MG RESISTOR | 220Ω 1/16W J | |
| R1016 | NRSA6AJ-222W | MG RESISTOR | 2.2kΩ 1/16W J | |
| R1017 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1018 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1019 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1020 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1022 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1023 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1024 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1025 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1028 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1029 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1030 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1031 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1037 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1043 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R1045 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1051 | NRSA6AJ-272W | MG RESISTOR | 2.7kΩ 1/16W J | |
| R1052 | NRSA6AJ-183W | MG RESISTOR | 18kΩ 1/16W J | |
| R1053 | NRSA6AJ-154W | MG RESISTOR | 150kΩ 1/16W J | |
| R1054 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R1055 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R1056 | NRSA6AJ-472W | MG RESISTOR | 4.7kΩ 1/16W J | |
| R1057 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R1058 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R1059 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R1060 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R1061 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R1062 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R1063 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R1064 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1065 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1066 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R1068 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R1069 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R1070 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R1071 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R1072 | NRSA6AJ-823W | MG RESISTOR | 82kΩ 1/16W J | |
| R1073 | NRSA6AJ-623W | MG RESISTOR | 62kΩ 1/16W J | |
| R1074 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R1075 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R1076 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R1077 | NRSA6AJ-105W | MG RESISTOR | 1MΩ 1/16W J | |
| R1082 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R1083 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R1084 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R1085 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R1086 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R2202 | NRSA6AJ-564W | MG RESISTOR | 560kΩ 1/16W J | |
| R2203 | NRSA6AJ-393W | MG RESISTOR | 39kΩ 1/16W J | |
| R2204 | NRSA6AJ-154W | MG RESISTOR | 150kΩ 1/16W J | |
| R2206 | NRSA6AJ-333W | MG RESISTOR | 33kΩ 1/16W J | |
| R2207 | NRSA6AJ-333W | MG RESISTOR | 33kΩ 1/16W J | |
| R2208 | NRSA6AJ-223W | MG RESISTOR | 22kΩ 1/16W J | |
| R2209 | NRSA6AJ-223W | MG RESISTOR | 22kΩ 1/16W J | |
| R2210 | NRSA6AJ-821W | MG RESISTOR | 820Ω 1/16W J | |
| R2211 | NRSA6AJ-821W | MG RESISTOR | 820Ω 1/16W J | |
| R2212 | NRSA6AJ-2R7W | MG RESISTOR | 2.7Ω 1/16W J | |
| R2213 | NRSA6AJ-2R7W | MG RESISTOR | 2.7Ω 1/16W J | |
| R2217 | NRSA6AJ-100W | MG RESISTOR | 10Ω 1/16W J | |
| R2233 | NRSA6AJ-564W | MG RESISTOR | 560kΩ 1/16W J | |
| R2234 | NRSA6AJ-564W | MG RESISTOR | 560kΩ 1/16W J | |
| R2235 | NRSA6AJ-332W | MG RESISTOR | 3.3kΩ 1/16W J | |
| R2241 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R2401 | NRSA6AJ-472W | MG RESISTOR | 4.7kΩ 1/16W J | |
| R2402 | NRSA6AJ-472W | MG RESISTOR | 4.7kΩ 1/16W J | |
| R2403 | NRSA6AJ-183W | MG RESISTOR | 18kΩ 1/16W J | |
| R2407 | NRSA6AJ-100W | MG RESISTOR | 10Ω 1/16W J | |
| R2601 | NRSA6AJ-222W | MG RESISTOR | 2.2kΩ 1/16W J | |
| R2602 | NRSA6AJ-222W | MG RESISTOR | 2.2kΩ 1/16W J | |
| R2607 | NRSA6AJ-222W | MG RESISTOR | 2.2kΩ 1/16W J | |
| R2608 | NRSA6AJ-222W | MG RESISTOR | 2.2kΩ 1/16W J | |
| R2609 | NRSA6AJ-223W | MG RESISTOR | 22kΩ 1/16W J | |
| R2610 | NRSA6AJ-223W | MG RESISTOR | 22kΩ 1/16W J | |
| R3001 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3002 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3003 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3004 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3007 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |

| MODEL | MARK |
|---|---|
| GZ-MG27US | A |
| GZ-MG37US | B |
| GZ-MG39UC | C |

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| R3008 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3009 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3012 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3013 | NRSA6AJ-271W | MG RESISTOR | 270Ω 1/16W J | |
| R3014 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3016 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3017 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3022 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3023 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3024 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3025 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3026 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3027 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3028 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3029 | NRSA6AJ-472W | MG RESISTOR | 4.7kΩ 1/16W J | |
| R3030 | NRSA6AJ-472W | MG RESISTOR | 4.7kΩ 1/16W J | |
| R3031 | NRSA6AJ-472W | MG RESISTOR | 4.7kΩ 1/16W J | |
| R3032 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R3033 | NRSA6AJ-472W | MG RESISTOR | 4.7kΩ 1/16W J | |
| R3034 | NRSA6AJ-472W | MG RESISTOR | 4.7kΩ 1/16W J | |
| R3035 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3036 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3039 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3040 | NRSA6AJ-271W | MG RESISTOR | 270Ω 1/16W J | |
| R3041 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3042 | NRSA6AJ-100W | MG RESISTOR | 10Ω 1/16W J | |
| R3043 | NRSA6AJ-100W | MG RESISTOR | 10Ω 1/16W J | |
| R3044 | NRSA6AJ-100W | MG RESISTOR | 10Ω 1/16W J | |
| R3045 | NRSA6AJ-100W | MG RESISTOR | 10Ω 1/16W J | |
| R3046 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3201 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3202 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3203 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3204 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3205 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3206 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3207 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3208 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R3209 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3210 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3211 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3212 | NRSA6AD-183W | MG RESISTOR | 18kΩ 1/16W D | |
| R3213 | NRSA6AD-123W | MG RESISTOR | 12kΩ 1/16W D | |
| R3214 | NRSA6AD-272W | MG RESISTOR | 2.7kΩ 1/16W D | |
| R3215 | NRSA6AD-272W | MG RESISTOR | 2.7kΩ 1/16W D | |
| R3216 | NRSA6AD-821W | MG RESISTOR | 820Ω 1/16W D | |
| R3217 | NRSA6AD-821W | MG RESISTOR | 820Ω 1/16W D | |
| R3221 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3222 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3223 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R3224 | NRSA63J-330X | MG RESISTOR | 33Ω 1/16W J | |
| R3701 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3702 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R3703 | NRSA6AD-680W | MG RESISTOR | 68Ω 1/16W D | |
| R3708 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R3709 | NRSA6AJ-122W | MG RESISTOR | 1.2kΩ 1/16W J | |
| R3710 | NRSA6AJ-222W | MG RESISTOR | 2.2kΩ 1/16W J | |
| R4001 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4002 | NRSA6AJ-332W | MG RESISTOR | 3.3kΩ 1/16W J | |
| R4003 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4005 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4006 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4007 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4008 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4015 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4016 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R4017 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R4018 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4019 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4020 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4021 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4023 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4025 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4026 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4027 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4030 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4031 | NRSA6AJ-221W | MG RESISTOR | 220Ω 1/16W J | |
| R4032 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4034 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4035 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4036 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4037 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4038 | NRSA6AJ-820W | MG RESISTOR | 82Ω 1/16W J | |
| R4039 | NRSA6AJ-470W | MG RESISTOR | 47Ω 1/16W J | |
| R4042 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4043 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R4048 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4049 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4050 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4051 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4052 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4053 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4054 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4055 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4056 | NRSA6AJ-181W | MG RESISTOR | 180Ω 1/16W J | |
| R4057 | NRSA6AJ-181W | MG RESISTOR | 180Ω 1/16W J | |
| R4058 | NRSA6AJ-181W | MG RESISTOR | 180Ω 1/16W J | |
| R4059 | NRSA6AJ-181W | MG RESISTOR | 180Ω 1/16W J | |
| R4060 | NRSA6AJ-181W | MG RESISTOR | 180Ω 1/16W J | |
| R4061 | NRSA6AJ-181W | MG RESISTOR | 180Ω 1/16W J | |
| R4062 | NRSA6AJ-181W | MG RESISTOR | 180Ω 1/16W J | |
| R4063 | NRSA6AJ-181W | MG RESISTOR | 180Ω 1/16W J | |
| R4064 | NRSA6AJ-181W | MG RESISTOR | 180Ω 1/16W J | |
| R4065 | NRSA6AJ-181W | MG RESISTOR | 180Ω 1/16W J | |
| R4066 | NRSA6AJ-181W | MG RESISTOR | 180Ω 1/16W J | |
| R4067 | NRSA6AJ-181W | MG RESISTOR | 180Ω 1/16W J | |
| R4068 | NRSA6AJ-181W | MG RESISTOR | 180Ω 1/16W J | |
| R4069 | NRSA6AJ-181W | MG RESISTOR | 180Ω 1/16W J | |
| R4070 | NRSA6AJ-181W | MG RESISTOR | 180Ω 1/16W J | |
| R4071 | NRSA6AJ-181W | MG RESISTOR | 180Ω 1/16W J | |
| R4072 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4073 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4074 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4075 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4076 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4077 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4078 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4079 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4081 | NRSA6AJ-331W | MG RESISTOR | 330Ω 1/16W J | |
| R4083 | NRSA6AJ-472W | MG RESISTOR | 4.7kΩ 1/16W J | |
| R4084 | NRSA6AJ-472W | MG RESISTOR | 4.7kΩ 1/16W J | |
| R4086 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4087 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4088 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4201 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R4204 | NRSA6AJ-100W | MG RESISTOR | 10Ω 1/16W J | |
| R4205 | NRSA6AJ-100W | MG RESISTOR | 10Ω 1/16W J | |
| R4206 | NRSA6AJ-100W | MG RESISTOR | 10Ω 1/16W J | |
| R4207 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4208 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4209 | NRSA6AJ-105W | MG RESISTOR | 1MΩ 1/16W J | |
| R4210 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4211 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4212 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4214 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4219 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4220 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4221 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4222 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4223 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4224 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4225 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4226 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R4227 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R4301 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4413 | NRSA6AJ-470W | MG RESISTOR | 47Ω 1/16W J | |
| R4414 | NRSA6AJ-470W | MG RESISTOR | 47Ω 1/16W J | |
| R4415 | NRSA6AJ-470W | MG RESISTOR | 47Ω 1/16W J | |
| R4416 | NRSA6AJ-470W | MG RESISTOR | 47Ω 1/16W J | |
| R4418 | NRSA6AJ-470W | MG RESISTOR | 47Ω 1/16W J | |
| R4422 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R4424 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R4425 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4501 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4502 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4503 | NRSA6AJ-471W | MG RESISTOR | 470Ω 1/16W J | |

| MODEL | MARK |
|---|---|
| GZ-MG27US | A |
| GZ-MG37US | B |
| GZ-MG39UC | C |

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| R4504 | NRSA6AJ-471W | MG RESISTOR | 470Ω 1/16W J | |
| R4505 | NRSA6AJ-471W | MG RESISTOR | 470Ω 1/16W J | |
| R4506 | NRSA6AJ-471W | MG RESISTOR | 470Ω 1/16W J | |
| R4507 | NRSA6AJ-471W | MG RESISTOR | 470Ω 1/16W J | |
| R4508 | NRSA6AJ-471W | MG RESISTOR | 470Ω 1/16W J | |
| R4510 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4511 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4513 | NRSA6AJ-100W | MG RESISTOR | 10Ω 1/16W J | |
| R4514 | NRSA6AJ-100W | MG RESISTOR | 10Ω 1/16W J | |
| R4515 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R4524 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4525 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4527 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4529 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4530 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4531 | NRSA6AJ-123W | MG RESISTOR | 12kΩ 1/16W J | |
| R4532 | NRSA6AJ-223W | MG RESISTOR | 22kΩ 1/16W J | |
| R4533 | NRSA6AJ-822W | MG RESISTOR | 8.2kΩ 1/16W J | |
| R4534 | NRSA6AJ-393W | MG RESISTOR | 39kΩ 1/16W J | |
| R4535 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4536 | NRSA6AJ-100W | MG RESISTOR | 10Ω 1/16W J | |
| R4537 | NRSA6AJ-100W | MG RESISTOR | 10Ω 1/16W J | |
| R4541 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R4542 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4550 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R4551 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R4554 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4555 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4556 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4558 | NRSA6AJ-471W | MG RESISTOR | 470Ω 1/16W J | |
| R4563 | NRSA6AJ-152W | MG RESISTOR | 1.5kΩ 1/16W J | |
| R4569 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4571 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4579 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4580 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R4581 | NRSA6AJ-331W | MG RESISTOR | 330Ω 1/16W J | |
| R4582 | NRSA6AJ-331W | MG RESISTOR | 330Ω 1/16W J | |
| R4583 | NRSA6AJ-331W | MG RESISTOR | 330Ω 1/16W J | |
| R4585 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4587 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4588 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4903 | NRSA6AJ-822W | MG RESISTOR | 8.2kΩ 1/16W J | |
| R4904 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R4905 | NRSA6AJ-153W | MG RESISTOR | 15kΩ 1/16W J | |
| R4906 | NRSA6AJ-564W | MG RESISTOR | 560kΩ 1/16W J | |
| R4907 | NRSA6AJ-105W | MG RESISTOR | 1MΩ 1/16W J | |
| R4908 | NRSA6AJ-472W | MG RESISTOR | 4.7kΩ 1/16W J | |
| R4909 | NRSA6AJ-105W | MG RESISTOR | 1MΩ 1/16W J | |
| R4910 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4911 | NRSA6AJ-101W | MG RESISTOR | 100Ω 1/16W J | |
| R4916 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R4917 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R4919 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R4920 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R4923 | NRSA6AJ-122W | MG RESISTOR | 1.2kΩ 1/16W J | |
| R4924 | NRSA6AJ-123W | MG RESISTOR | 12kΩ 1/16W J | |
| R4925 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R4926 | NRSA6AJ-333W | MG RESISTOR | 33kΩ 1/16W J | |
| R4927 | NRSA6AJ-564W | MG RESISTOR | 560kΩ 1/16W J | |
| R4931 | NRSA6AJ-271W | MG RESISTOR | 270Ω 1/16W J | |
| R4944 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4948 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R4949 | NRSA6AJ-562W | MG RESISTOR | 5.6kΩ 1/16W J | |
| R4950 | NRSA6AJ-123W | MG RESISTOR | 12kΩ 1/16W J | |
| R4951 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R4993 | NRSA6AJ-471W | MG RESISTOR | 470Ω 1/16W J | |
| R7801 | NRSA6AJ-333W | MG RESISTOR | 33kΩ 1/16W J | |
| R7802 | NRSA6AJ-822W | MG RESISTOR | 8.2kΩ 1/16W J | |
| R7803 | NRSA6AD-621W | MG RESISTOR | 620Ω 1/16W D | |
| R7804 | NRSA6AD-222W | MG RESISTOR | 2.2kΩ 1/16W D | |
| R7805 | NRSA6AD-123W | MG RESISTOR | 12kΩ 1/16W D | |
| R7807 | NRSA6AJ-682W | MG RESISTOR | 6.8kΩ 1/16W J | |
| R7808 | NRSA6AD-621W | MG RESISTOR | 620Ω 1/16W D | |
| R7809 | NRSA6AD-222W | MG RESISTOR | 2.2kΩ 1/16W D | |
| R7810 | NRSA6AD-123W | MG RESISTOR | 12kΩ 1/16W D | |
| R7812 | NRSA6AJ-682W | MG RESISTOR | 6.8kΩ 1/16W J | |
| R7813 | NRSA6AD-621W | MG RESISTOR | 620Ω 1/16W D | |
| R7814 | NRSA6AD-222W | MG RESISTOR | 2.2kΩ 1/16W D | |
| R7815 | NRSA6AD-123W | MG RESISTOR | 12kΩ 1/16W D | |
| R7817 | NRSA6AJ-682W | MG RESISTOR | 6.8kΩ 1/16W J | |
| R7851 | NRSA6AD-333W | MG RESISTOR | 33kΩ 1/16W D | |
| R7853 | NRSA6AD-363W | MG RESISTOR | 36kΩ 1/16W D | |
| R7854 | NRSA6AD-333W | MG RESISTOR | 33kΩ 1/16W D | |
| R7856 | NRSA6AD-363W | MG RESISTOR | 36kΩ 1/16W D | |
| R7857 | NRSA6AD-333W | MG RESISTOR | 33kΩ 1/16W D | |
| R7859 | NRSA6AD-363W | MG RESISTOR | 36kΩ 1/16W D | |
| R8301 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8302 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8303 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8304 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8305 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8306 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8307 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8308 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8309 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8310 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8311 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8312 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8313 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8314 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8315 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8316 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8317 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8318 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8319 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8320 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8321 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8322 | NRSA6AJ-220W | MG RESISTOR | 22Ω 1/16W J | |
| R8323 | NRSA6AJ-220W | MG RESISTOR | 22Ω 1/16W J | |
| R8324 | NRSA6AJ-820W | MG RESISTOR | 82Ω 1/16W J | |
| R8325 | NRSA6AJ-220W | MG RESISTOR | 22Ω 1/16W J | |
| R8326 | NRSA6AJ-820W | MG RESISTOR | 82Ω 1/16W J | |
| R8327 | NRSA6AJ-820W | MG RESISTOR | 82Ω 1/16W J | |
| R8328 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8329 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R8330 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R8331 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R8332 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R8333 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R8334 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R8335 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R8336 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R8337 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R8338 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R8340 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R8341 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R8342 | NRVA6AD-622W | CMF RESISTOR | 6.2kΩ 1/16W D | |
| R8343 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R8344 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R8348 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R8349 | NRSA6AJ-330W | MG RESISTOR | 33Ω 1/16W J | |
| R8350 | NRSA6AJ-121W | MG RESISTOR | 120Ω 1/16W J | |
| R8351 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R8352 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R8353 | NRSA6AJ-562W | MG RESISTOR | 5.6kΩ 1/16W J | |
| R8354 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R8355 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R8356 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R8357 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R8359 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R8364 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R8365 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R8367 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| RA3001 | NRZ0034-181W | NET RESISTOR | 180Ω 1/32W J x4 | |
| RA3002 | NRZ0034-181W | NET RESISTOR | 180Ω 1/32W J x4 | |
| RA3201 | NRZ0034-100W | NET RESISTOR | 10Ω 1/32W J x4 | |
| RA3202 | NRZ0034-100W | NET RESISTOR | 10Ω 1/32W J x4 | |
| RA4001 | NRZ0034-221W | NET RESISTOR | 220Ω 1/32W J x4 | |
| RA4002 | NRZ0034-221W | NET RESISTOR | 220Ω 1/32W J x4 | |
| RA4003 | NRZ0034-473W | NET RESISTOR | 47kΩ 1/32W J x4 | |
| RA4004 | NRZ0034-473W | NET RESISTOR | 47kΩ 1/32W J x4 | |
| RA4301 | NRZ0034-104W | NET RESISTOR | 100kΩ 1/32W J x4 | |
| RA4302 | NRZ0034-104W | NET RESISTOR | 100kΩ 1/32W J x4 | |
| RA4303 | NRZ0034-104W | NET RESISTOR | 100kΩ 1/32W J x4 | |
| RA4304 | NRZ0034-104W | NET RESISTOR | 100kΩ 1/32W J x4 | |

| MODEL | MARK |
|---|---|
| GZ-MG27US | A |
| GZ-MG37US | B |
| GZ-MG39UC | C |

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| L111 | NRSA02J-0R0X | MG RESISTOR | 0Ω 1/10W J | |
| L121 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| L131 | NQR0506-002X | EMI FILTER | | |
| L141 | NQR0129-002X | FERRITE BEADS | | |
| L161 | NQL38DK-100X | P COIL | 10uH K | |
| L171 | NQR0129-002X | FERRITE BEADS | | |
| L1001 | NQR0129-002X | FERRITE BEADS | | |
| L1002 | NQLC32M-100X | COIL | 10uH M | |
| L2401 | NQLC32M-100X | COIL | 10uH M | |
| L2402 | NQLC32M-100X | COIL | 10uH M | |
| L2601 | NQR0269-013X | FERRITE BEADS | | |
| L2602 | NQR0269-013X | FERRITE BEADS | | |
| L2603 | NQR0269-013X | FERRITE BEADS | | |
| L3001 | NQR0129-002X | FERRITE BEADS | | |
| L3002 | NQR0154-003X | FERRITE CORE | | |
| L3005 | NQR0006-001X | FERRITE BEADS | | |
| L3007 | NQR0129-002X | FERRITE BEADS | | |
| L3201 | NQR0129-002X | FERRITE BEADS | | |
| L3203 | NQR0129-002X | FERRITE BEADS | | |
| L3206 | NRSA02J-0R0X | MG RESISTOR | 0Ω 1/10W J | |
| L3701 | NQL38DK-100X | P COIL | 10uH K | |
| L4003 | NQR0129-002X | FERRITE BEADS | | |
| L4004 | NQR0006-001X | FERRITE BEADS | | |
| L4005 | NQR0154-003X | FERRITE CORE | | |
| L4008 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| L4201 | NQR0006-001X | FERRITE BEADS | | |
| L4202 | NQL315K-220X | COIL | 22uH K | |
| L4203 | NQL315K-220X | COIL | 22uH K | |
| L4204 | NQL315K-220X | COIL | 22uH K | |
| L4205 | NQLC32M-100X | COIL | 10uH M | |
| L4301 | NQR0129-002X | FERRITE BEADS | | |
| L4303 | NQR0154-003X | FERRITE CORE | | |
| L4401 | NQR0006-001X | FERRITE BEADS | | |
| L4402 | NQR0006-001X | FERRITE BEADS | | |
| L4501 | NQR0006-001X | FERRITE BEADS | | |
| L4502 | NQR0006-001X | FERRITE BEADS | | |
| L4503 | NQR0006-001X | FERRITE BEADS | | |
| L4505 | NQR0006-001X | FERRITE BEADS | | |
| L4507 | NQR0006-001X | FERRITE BEADS | | |
| L4901 | NQR0129-002X | FERRITE BEADS | | |
| L4902 | NQL38DK-100X | P COIL | 10uH K | |
| L4903 | NQL38DK-100X | P COIL | 10uH K | |
| L4904 | NQL38DK-100X | P COIL | 10uH K | |
| L7801 | NRSA02J-0R0X | MG RESISTOR | 0Ω 1/10W J | |
| L7851 | NRSA02J-0R0X | MG RESISTOR | 0Ω 1/10W J | |
| L8301 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| L8302 | NQR0006-001X | FERRITE BEADS | | |
| L8303 | NRSA02J-0R0X | MG RESISTOR | 0Ω 1/10W J | |
| L8304 | NQR0006-001X | FERRITE BEADS | | |
| L8305 | NQR0129-002X | FERRITE BEADS | | |
| CN101 | QGF0547C3-50X | CONNECTOR | OPE FFC/FPC (1-50) | |
| CN102 | QGF0508F3-40X | CONNECTOR | KIN HDD FFC/FPC (1-40) | |
| CN103 | QGF0508F3-53X | CONNECTOR | KIN REAR FFC/FPC (1-53) | |
| CN104 | QGF0534F2-06X | CONNECTOR | KIN ZOOM FFC/FPC (1-6) | |
| CN105 | QGF0547C3-24X | CONNECTOR | CCD FFC/FPC (1-24) | |
| CN106 | QGF0549C2-26W | CONNECTOR | KIN OP FFC/FPC (1-26) | |
| CN107 | QGA1001F1-04X | CONNECTOR | INT MIC W-B (1-4) | |
| CN110 | QGB0512L1-30X | CONNECTOR | JIG B-B (1-30) | |
| CN111 | NNZ0156-001X | SD CARD CONNE | SD | |
| J101 | QNZ0847-001 | USB CONNECTOR | AB USB | |
| TP1 | NNZ0163-001X | EARTH TERMINAL | | |
| TP2 | NNZ0163-001X | EARTH TERMINAL | | |
| TP3 | NNZ0163-001X | EARTH TERMINAL | | |
| X1001 | NAX0784-001X | C RESONATOR | | |
| X1002 | NAX0564-001X | CRYSTAL | 32.768kHz | |
| X4001 | NAX0710-001X | CXO | | |
| X4201 | NAX0879-001X | CRYSTAL | 36MHZ XTAL | |
| X8301 | NAX0713-001X | CRYSTAL | 24.000MHz | |
| HD1 | LY35255-001A-ML | HOLDER(W.B) | W.B.HOLD | |
| HD2 | LY35258-001A-ML | LED HOLDER (1) | LED HOLD1 | |
| HD3 | LY35259-001A-ML | LED HOLDER (2) | LED HOLD2 | |
| OT1 | QAL0807-001 | FPC | MAIN-HDD | |
| OT2 | LY30035-025B | SPACER(A) | | |
| OT3 | LY30035-036A | SPACER(A) | | |
| SD1 | LY45207-001A | SHIELD SHEET | SD | |

## CCD BOARD ASSEMBLY <02>

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| PW1 | LYA10067-01B | CCD BOARD ASSY | | |
| IC5801 | TC75S54FU-X | IC | | |
| IC5801 or | NJU7008F3-X | IC | | |
| IC5802 | SN74AHC1G66K-X | IC | | |
| IC5802 or | TC7S66FU-X | IC(DIGITAL) | | |
| IC5802 or | 74AHC1G66GW-X | IC | | |
| IC5803 | TC75S54FU-X | IC | | |
| IC5803 or | NJU7008F3-X | IC | | |
| IC5804 | TC7W53FU-X | IC(DIGITAL) | | |
| IC5852 | NAL0039-001X | GYRO SENSOR | | |
| IC5901 | TC75S54FU-X | IC | | |
| IC5901 or | NJU7008F3-X | IC | | |
| IC5902 | SN74AHC1G66K-X | IC | | |
| IC5902 or | TC7S66FU-X | IC(DIGITAL) | | |
| IC5902 or | 74AHC1G66GW-X | IC | | |
| IC5903 | TC75S54FU-X | IC | | |
| IC5903 or | NJU7008F3-X | IC | | |
| IC5904 | TC7W53FU-X | IC(DIGITAL) | | |
| IC5952 | NAL0038-001X | GYRO SENSOR | | |
| Q5001 | 2SC5345U/Y/-X | TRANSISTOR | CCD OUT | |
| Q5001 or | 2SC3931/CD/-X | TRANSISTOR | CCD OUT | |
| C5001 | NBP41EM-475X-B | TA E CAPACITOR | 4.7uF 25V M | |
| C5002 | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K | |
| C5003 | NBP21CM-106X | TA E CAPACITOR | 10uF 16V M | |
| C5004 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C5005 | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K | |
| C5006 | NCB11EK-104X | C CAPACITOR | 0.1uF 25V K | |
| C5007 | NCB31HK-222X | C CAPACITOR | 2200pF 50V K | |
| C5801 | NBE90JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C5806 | NCB31CK-103X | C CAPACITOR | 0.01uF 16V K | |
| C5807 | NCB21AK-225X | C CAPACITOR | 2.2uF 10V K | |
| C5808 | NDC31HJ-331X | C CAPACITOR | 330pF 50V J | |
| C5809 | NBE20JM-475X | TA E CAPACITOR | 4.7uF 6.3V M | |
| C5810 | NDC31HJ-331X | C CAPACITOR | 330pF 50V J | |
| C5812 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C5813 | NDC31HJ-331X | C CAPACITOR | 330pF 50V J | |
| C5851 | NBE90JM-106X | TA E CAPACITOR | 10uF 6.3V M | |
| C5853 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C5907 | NCB21AK-225X | C CAPACITOR | 2.2uF 10V K | |
| C5908 | NDC31HJ-331X | C CAPACITOR | 330pF 50V J | |
| C5909 | NBE20JM-475X | TA E CAPACITOR | 4.7uF 6.3V M | |
| C5910 | NDC31HJ-331X | C CAPACITOR | 330pF 50V J | |
| C5912 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C5913 | NDC31HJ-331X | C CAPACITOR | 330pF 50V J | |
| R5001 | NRSA63J-472X | MG RESISTOR | 4.7kΩ 1/16W J | |
| R5805 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R5806 | NRSA63J-474X | MG RESISTOR | 470kΩ 1/16W J | |
| R5807 | NRSA63J-183X | MG RESISTOR | 18kΩ 1/16W J | |
| R5808 | NRSA63J-105X | MG RESISTOR | 1MΩ 1/16W J | |
| R5811 | NRSA63J-123X | MG RESISTOR | 12kΩ 1/16W J | |
| R5812 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R5816 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R5817 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R5818 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R5819 | NRSA63D-104X | MG RESISTOR | 100kΩ 1/16W D | |
| R5820 | NRSA63D-103X | MG RESISTOR | 10kΩ 1/16W D | |
| R5905 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R5906 | NRSA63J-474X | MG RESISTOR | 470kΩ 1/16W J | |
| R5907 | NRSA63J-183X | MG RESISTOR | 18kΩ 1/16W J | |
| R5908 | NRSA63J-105X | MG RESISTOR | 1MΩ 1/16W J | |
| R5911 | NRSA63J-123X | MG RESISTOR | 12kΩ 1/16W J | |
| R5912 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R5915 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R5917 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R5918 | NRSA63J-473X | MG RESISTOR | 47kΩ 1/16W J | |
| R5919 | NRSA63D-104X | MG RESISTOR | 100kΩ 1/16W D | |
| R5920 | NRSA63D-103X | MG RESISTOR | 10kΩ 1/16W D | |
| L5001 | NQL315K-100X | COIL | 10uH K | |
| L5003 | NQL315K-100X | COIL | 10uH K | |
| L5801 | NQR0129-002X | FERRITE BEADS | | |
| L5851 | NQR0129-002X | FERRITE BEADS | | |

| MODEL | MARK |
|---|---|
| GZ-MG27US | A |
| GZ-MG37US | B |
| GZ-MG39UC | C |

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| CN5001 | QGF0503F8-24X | CONNECTOR | TO MAIN FFC/FPC (1-24) | |
| OT1 | QAL0740-002 | FPC | FOR CN5001 | |

## OPE BOARD ASSEMBLY <04>

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| PW1 | LYA10069-01B1 | OPE BOARD ASSY | | |
| D401 | SML-A12UT-X | LED | POW/CHG | |
| D402 | SMLA12BC4T-X | LED | DRV_ACCESS | |
| D403 | MA8068-X | Z DIODE | LCD_OPN SW | |
| D403 or | UDZS6.8B-X | Z DIODE | LCD_OPN SW | |
| D404 | SML-A12MT-X | LED | USB_HOST | |
| D452 | MA8068-X | Z DIODE | | |
| D452 or | UDZS6.8B-X | Z DIODE | | |
| C451 | NCB31EK-103X | C CAPACITOR | 0.01uF 25V K | |
| C452 | NCB31EK-103X | C CAPACITOR | 0.01uF 25V K | |
| C455 | NCB31EK-103X | C CAPACITOR | 0.01uF 25V K | |
| C456 | NEAF0GM-337X | E CAPACITOR | 330uF 4V M | |
| C457 | NEAF0GM-337X | E CAPACITOR | 330uF 4V M | |
| R401 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R405 | NRSA63J-103X | MG RESISTOR | 10kΩ 1/16W J | |
| R406 | NRSA63J-332X | MG RESISTOR | 3.3kΩ 1/16W J | |
| R407 | NRSA63J-682X | MG RESISTOR | 6.8kΩ 1/16W J | |
| R408 | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J | |
| R451 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R452 | NRSA63J-101X | MG RESISTOR | 100Ω 1/16W J | |
| R455 | NRSA63D-680X | MG RESISTOR | 68Ω 1/16W D | |
| R456 | NRSA63D-680X | MG RESISTOR | 68Ω 1/16W D | |
| R457 | NRSA02J-0R0X | MG RESISTOR | 0Ω 1/10W J | |
| L451 | NQR0251-004X | FERRITE BEADS | | |
| L452 | NQR0251-004X | FERRITE BEADS | | |
| L453 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| L454 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| L455 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| ⚠ BT401 | QAB0069-001 | LITHIUM BATTERY | | |
| CN401 | QGF0547C3-50X | CONNECTOR | MAIN PWB FFC/FPC (1-50) | |
| CN402 | QGF0503F8-24X | CONNECTOR | MONI FPC FFC/FPC (1-24) | |
| CN403 | QGA1001F1-02X | CONNECTOR | SPEAKER W-B (1-2) | |
| J401 | QNS0078-001 | 3.5 JACK | AV JACK | |
| J402 | QND0078-001 | S JACK | S JACK | |
| S401 | NSW0260-001X | SLIDE SWITCH | POWER_CHRG | |
| S402 | NSW0161-001X | DETECT SWITCH | LCD_OPEN | |
| S403 | NSW0099-001X | SLIDE SWITCH | MOV/STILL | |
| S404 | NSW0198-001X | TACT SWITCH | INFO | |
| S405 | NSW0198-001X | TACT SWITCH | BKLIGHT | |
| S411 | NSW0198-001X | TACT SWITCH | NIGHT EYE | |
| S412 | NSW0198-001X | TACT SWITCH | TRASH | |
| S413 | NSW0272-001X | TACT SWITCH | RESET | |
| WR1 | WJT0196-001A-E | E-CARD WIRE | OPE-MAIN | |

## REAR BOARD ASSEMBLY <05>

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| PW1 | LYA10068-01C | REAR BOARD ASSY | | |
| IC6001 | FA7737F | IC | | |
| IC6002 | LTC4412ES6-W | IC | | |
| IC6004 | S-89220ACNC-G-W | IC | | |
| Q6002 | DTC144EE-X | DIGI TRANSISTOR | | |
| Q6002 or | BCR148T-X | DIGI TRANSISTOR | | |
| Q6002 or | UN9213J-X | DIGI TRANSISTOR | | |
| Q6002 or | PDTC144EE-X | DIGI TRANSISTOR | | |
| Q6003 | SP8J5-X | MOS FET | SP8J5 | |
| Q6101 | RSR025P03-X | MOS FET | | |
| Q6102 | RSR025N03-X | MOS FET | | |
| Q6201 | RSR025P03-X | MOS FET | | |
| Q6202 | RSR025N03-X | MOS FET | | |
| Q6301 | RSR025P03-X | MOS FET | | |
| Q6302 | RTF020P02-X | MOS FET | | |
| Q6303 | 2SC4617/QR/-X | TRANSISTOR | | |
| Q6303 or | BC847BT-X | TRANSISTOR | | |
| Q6303 or | 2SD2216J/QR/-X | TRANSISTOR | | |
| Q6303 or | 2SC4738/YG/-X | TRANSISTOR | | |
| Q6303 or | 2SC5383/E/-X | TRANSISTOR | | |
| Q6401 | RSR025P03-X | MOS FET | | |
| Q6402 | RTF020P02-X | MOS FET | | |
| Q6403 | 2SC4617/QR/-X | TRANSISTOR | | |
| Q6403 or | BC847BT-X | TRANSISTOR | | |
| Q6403 or | 2SD2216J/QR/-X | TRANSISTOR | | |
| Q6403 or | 2SC4738/YG/-X | TRANSISTOR | | |
| Q6403 or | 2SC5383/E/-X | TRANSISTOR | | |
| Q6404 | RTF020P02-X | MOS FET | | |
| Q6501 | RSR025P03-X | MOS FET | | |
| Q6502 | 2SD2703-X | TRANSISTOR | | |
| Q6503 | UMT1N-W | PAIR TRANSISTOR | | |
| Q6503 or | HN1A01FU/G/-X | PAIR TRANSISTOR | | |
| Q6503 or | BC856S-X | PAIR TRANSISTOR | | |
| Q6701 | RSR025P03-X | MOS FET | | |
| Q6702 | RSR025P03-X | MOS FET | | |
| Q6703 | RSR025P03-X | MOS FET | | |
| D601 | EMZ6.8N-X | Z DIODE | BATT | |
| D602 | UDZS16B-X | Z DIODE | | |
| D6101 | RB160M-30-X | SB DIODE | | |
| D6201 | RB160M-30-X | SB DIODE | | |
| D6301 | RB160M-30-X | SB DIODE | | |
| D6302 | 1SS355-X | SI DIODE | | |
| D6302 or | MA111-X | SI DIODE | | |
| D6401 | 1SS355-X | SI DIODE | | |
| D6401 or | MA111-X | SI DIODE | | |
| D6402 | RB160M-30-X | SB DIODE | | |
| D6501 | RB481K-X | SB DIODE | | |
| D6502 | RB481K-X | SB DIODE | | |
| D6701 | RB160M-30-X | SB DIODE | | |
| D6702 | RB160M-30-X | SB DIODE | | |
| D6801 | RB551V-30-X | SB DIODE | | |
| D6901 | MA8068-X | Z DIODE | | |
| C601 | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K | |
| C603 | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K | |
| C6006 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C6007 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C6008 | NCJ21CK-475X-R | C CAPACITOR | 4.7uF 16V K | |
| C6009 | NCB21CK-224X | C CAPACITOR | 0.22uF 16V K | |
| C6010 | NCB30JK-105X | C CAPACITOR | 1uF 6.3V K | |
| C6011 | NCJ21CK-475X-R | C CAPACITOR | 4.7uF 16V K | |
| C6017 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C6018 | NCBA1AK-104W | C CAPACITOR | 0.1uF 10V K | |
| C6019 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C6020 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C6101 | NCB21CK-105X | C CAPACITOR | 1uF 16V K | |
| C6102 | NCB10JK-106X | C CAPACITOR | 10uF 6.3V K | |
| C6103 | NCBA1HK-221W | C CAPACITOR | 220pF 50V K | |
| C6104 | NCBA1HK-102W | C CAPACITOR | 1000pF 50V K | |
| C6201 | NCB21CK-105X | C CAPACITOR | 1uF 16V K | |
| C6202 | NCB10JK-106X | C CAPACITOR | 10uF 6.3V K | |
| C6203 | NCBA1HK-102W | C CAPACITOR | 1000pF 50V K | |
| C6204 | NCBA1HK-221W | C CAPACITOR | 220pF 50V K | |
| C6301 | NCB21CK-105X | C CAPACITOR | 1uF 16V K | |
| C6302 | NCB10JK-106X | C CAPACITOR | 10uF 6.3V K | |
| C6303 | NCBA1HK-681W | C CAPACITOR | 680pF 50V K | |
| C6305 | NCBA1HK-221W | C CAPACITOR | 220pF 50V K | |
| C6401 | NCB21CK-105X | C CAPACITOR | 1uF 16V K | |
| C6402 | NCB10JK-106X | C CAPACITOR | 10uF 6.3V K | |
| C6403 | NCBA1HK-681W | C CAPACITOR | 680pF 50V K | |
| C6405 | NCBA1HK-221W | C CAPACITOR | 220pF 50V K | |
| C6501 | NCB21CK-105X | C CAPACITOR | 1uF 16V K | |
| C6502 | NCF21CZ-105X | C CAPACITOR | 1uF 16V Z | |
| C6503 | NCB11EK-105X | C CAPACITOR | 1uF 25V K | |
| C6504 | NCB11CK-475X | C CAPACITOR | 4.7uF 16V K | |
| C6505 | NCF21CZ-105X | C CAPACITOR | 1uF 16V Z | |
| C6506 | NCB11EK-105X | C CAPACITOR | 1uF 25V K | |
| C6508 | NCB21CK-105X | C CAPACITOR | 1uF 16V K | |

| MODEL | MARK |
|---|---|
| GZ-MG27US | A |
| GZ-MG37US | B |
| GZ-MG39UC | C |

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| C6509 | NCBA1AK-333W | C CAPACITOR | 0.033uF 10V K | |
| C6510 | NCBA1AK-473W | C CAPACITOR | 0.047uF 10V K | |
| C6511 | NCB21CK-105X | C CAPACITOR | 1uF 16V K | |
| C6512 | NCB31CK-104X | C CAPACITOR | 0.1uF 16V K | |
| C6701 | NCB21CK-105X | C CAPACITOR | 1uF 16V K | |
| C6702 | NCB41CK-106X | C CAPACITOR | 10uF 16V K | |
| C6704 | NCBA1EK-472W | C CAPACITOR | 4700pF 25V K | |
| C6705 | NCBA1CK-103W | C CAPACITOR | 0.01uF 16V K | |
| C6706 | NCBA1HK-221W | C CAPACITOR | 220pF 50V K | |
| C6707 | NCBA1HK-821W | C CAPACITOR | 820pF 50V K | |
| C6802 | NCB10JK-106X | C CAPACITOR | 10uF 6.3V K | |
| C6803 | NCBA1HK-102W | C CAPACITOR | 1000pF 50V K | |
| C6804 | NCBA1HK-392W | C CAPACITOR | 3900pF 50V K | |
| R601 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R602 | NRSA6AJ-332W | MG RESISTOR | 3.3kΩ 1/16W J | |
| R603 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R604 | NRSA6AD-154W | MG RESISTOR | 150kΩ 1/16W D | |
| R605 | NRSA6AD-393W | MG RESISTOR | 39kΩ 1/16W D | |
| R6001 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R6002 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R6003 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R6004 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R6005 | NRSA6AD-303W | MG RESISTOR | 30kΩ 1/16W D | |
| R6007 | NRSA6AD-473W | MG RESISTOR | 47kΩ 1/16W D | |
| R6008 | NRSA6AD-823W | MG RESISTOR | 82kΩ 1/16W D | |
| R6009 | NRSA6AD-333W | MG RESISTOR | 33kΩ 1/16W D | |
| R6010 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R6012 | NRSA6AJ-564W | MG RESISTOR | 560kΩ 1/16W J | |
| R6014 | NRSA02J-0R0X | MG RESISTOR | 0Ω 1/10W J | |
| R6015 | NRSA02J-0R0X | MG RESISTOR | 0Ω 1/10W J | |
| R6016 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R6017 | NRSA6AJ-514W | MG RESISTOR | 510kΩ 1/16W J | |
| R6018 | NRSA6AJ-184W | MG RESISTOR | 180kΩ 1/16W J | |
| R6019 | NRSA6AJ-824W | MG RESISTOR | 820kΩ 1/16W J | |
| R6021 | NRSA6AJ-474W | MG RESISTOR | 470kΩ 1/16W J | |
| R6022 | NRSA6AJ-104W | MG RESISTOR | 100kΩ 1/16W J | |
| R6034 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R6102 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R6103 | NRSA6AJ-822W | MG RESISTOR | 8.2kΩ 1/16W J | |
| R6104 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R6109 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R6111 | NRSA6AD-473W | MG RESISTOR | 47kΩ 1/16W D | |
| R6112 | NRSA6AD-822W | MG RESISTOR | 8.2kΩ 1/16W D | |
| R6203 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R6204 | NRSA6AJ-822W | MG RESISTOR | 8.2kΩ 1/16W J | |
| R6205 | NRSA6AD-823W | MG RESISTOR | 82kΩ 1/16W D | |
| R6206 | NRSA6AD-363W | MG RESISTOR | 36kΩ 1/16W D | |
| R6301 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R6302 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R6303 | NRSA6AJ-822W | MG RESISTOR | 8.2kΩ 1/16W J | |
| R6304 | NRSA6AD-303W | MG RESISTOR | 30kΩ 1/16W D | |
| R6305 | NRSA6AD-133W | MG RESISTOR | 13kΩ 1/16W D | |
| R6306 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R6310 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R6311 | NRSA6AJ-185W | MG RESISTOR | 1.8MΩ 1/16W J | |
| R6313 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R6401 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R6402 | NRSA6AD-123W | MG RESISTOR | 12kΩ 1/16W D | |
| R6403 | NRSA6AJ-822W | MG RESISTOR | 8.2kΩ 1/16W J | |
| R6404 | NRSA6AD-562W | MG RESISTOR | 5.6kΩ 1/16W D | |
| R6405 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R6406 | NRSA6AJ-473W | MG RESISTOR | 47kΩ 1/16W J | |
| R6407 | NRSA6AJ-185W | MG RESISTOR | 1.8MΩ 1/16W J | |
| R6409 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| R6412 | NRSA6AJ-185W | MG RESISTOR | 1.8MΩ 1/16W J | |
| R6502 | NRSA6AD-104W | MG RESISTOR | 100kΩ 1/16W D | |
| R6503 | NRSA6AD-913W | MG RESISTOR | 91kΩ 1/16W D | |
| R6504 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R6505 | NRSA6AJ-333W | MG RESISTOR | 33kΩ 1/16W J | |
| R6507 | NRSA6AJ-754W | MG RESISTOR | 750kΩ 1/16W J | |
| R6509 | NRSA63J-102X | MG RESISTOR | 1kΩ 1/16W J | |
| R6512 | NRSA6AJ-103W | MG RESISTOR | 10kΩ 1/16W J | |
| R6513 | NRSA6AJ-272W | MG RESISTOR | 2.7kΩ 1/16W J | |
| R6702 | NRV142F-R20X | CMF RESISTOR | 0.2Ω 1/4W F | |
| R6703 | NRSA6AJ-105W | MG RESISTOR | 1MΩ 1/16W J | |
| R6704 | NRSA6AJ-105W | MG RESISTOR | 1MΩ 1/16W J | |
| R6708 | NRSA6AD-133W | MG RESISTOR | 13kΩ 1/16W D | |
| R6709 | NRSA6AD-104W | MG RESISTOR | 100kΩ 1/16W D | |
| R6710 | NRSA6AJ-124W | MG RESISTOR | 120kΩ 1/16W J | |
| R6712 | NRSA6AJ-561W | MG RESISTOR | 560Ω 1/16W J | |
| R6713 | NRSA6AJ-224W | MG RESISTOR | 220kΩ 1/16W J | |
| R6714 | NRSA6AJ-472W | MG RESISTOR | 4.7kΩ 1/16W J | |
| R6715 | NRSA6AD-103W | MG RESISTOR | 10kΩ 1/16W D | |
| R6716 | NRSA6AJ-822W | MG RESISTOR | 8.2kΩ 1/16W J | |
| R6717 | NRSA6AD-393W | MG RESISTOR | 39kΩ 1/16W D | |
| R6718 | NRSA6AJ-0R0W | MG RESISTOR | 0Ω 1/16W J | |
| R6719 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R6802 | NRSA6AJ-472W | MG RESISTOR | 4.7kΩ 1/16W J | |
| R6803 | NRSA6AJ-102W | MG RESISTOR | 1kΩ 1/16W J | |
| L6101 | NQL52EM-390X | COIL | 39uH M | |
| L6201 | NQL52EM-680X | COIL | 68uH M | |
| L6301 | NQL52EM-390X | COIL | 39uH M | |
| L6401 | NQL52EM-390X | COIL | 39uH M | |
| L6501 | NQL52EM-221X | COIL | 220uH M | |
| L6502 | NQL38DK-100X | P COIL | 10uH K | |
| L6701 | NQL52EM-470X | COIL | 47uH M | |
| L6801 | NQL79GM-470X | COIL | 47uH M | |
| CN6001 | QGF0508F3-53X | CONNECTOR | KIN MAIN FFC/FPC (1-53) | |
| CN6002 | QGF0534F2-06X | CONNECTOR | KIN TRIG FFC/FPC (1-6) | |
| ⚠ F6001 | NMFZ007-2R5X-K | FUSE | 2.5A 24V | |
| ⚠ F6002 | NMFZ007-2R5X-K | FUSE | 2.5A 24V | |
| ⚠ F6301 | NMFZ007-1R25X-K | FUSE | 1.25A 32V | |
| ⚠ F6501 | NMFZ007-R80X-K | FUSE | 0.8A 32V | |
| J601 | QNA0039-001 | DC JACK | DC JACK | |
| BT1 | LY35291-001A | BATT.TERMINAL | BATT TERMI | |
| OT1 | QAL0782-002 | FPC | TO MAIN | |

## MONITOR BOARD ASSEMBLY <06>

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| PW2 | LYA10069-01B2 | MONITOR BOARD ASSY | | |
| IC7601 | DN8797MS-X | IC | | |
| Q7702 | UMD3N-W | DIGI TRANSISTOR | | |
| Q7703 | UMX1N-W | PAIR TRANSISTOR | | |
| Q7703 or | PUMX1-W | PAIR TRANSISTOR | | |
| Q7703 or | BC847S-X | PAIR TRANSISTOR | | |
| Q7703 or | KTC801U/G/-X | PAIR TRANSISTOR | | |
| Q7703 or | RT3CLLM/EF/-X | PAIR TRANSISTOR | | |
| C7602 | NCB10JK-106X | C CAPACITOR | 10uF 6.3V K | |
| C7603 | NCB31CK-105X | C CAPACITOR | 1uF 16V K | |
| C7604 | NCB31CK-105X | C CAPACITOR | 1uF 16V K | |
| C7605 | NCB31CK-105X | C CAPACITOR | 1uF 16V K | |
| C7607 | NCB11EK-105X | C CAPACITOR | 1uF 25V K | |
| C7608 | NCB31CK-105X | C CAPACITOR | 1uF 16V K | |
| C7609 | NCB11EK-105X | C CAPACITOR | 1uF 25V K | |
| C7610 | NCB11EK-105X | C CAPACITOR | 1uF 25V K | |
| C7611 | NCB11EK-105X | C CAPACITOR | 1uF 25V K | |
| C7612 | NCB11EK-105X | C CAPACITOR | 1uF 25V K | |
| C7613 | NCB31EK-153X | C CAPACITOR | 0.015uF 25V K | |
| C7614 | NCB31CK-224X | C CAPACITOR | 0.22uF 16V K | |
| C7703 | NCB31EK-103X | C CAPACITOR | 0.01uF 25V K | |
| C7704 | NCB31EK-104X | C CAPACITOR | 0.1uF 25V K | |
| R7501 | NRSA63J-332X | MG RESISTOR | 3.3kΩ 1/16W J | |
| R7502 | NRSA63J-682X | MG RESISTOR | 6.8kΩ 1/16W J | |
| R7503 | NRSA63J-223X | MG RESISTOR | 22kΩ 1/16W J | |
| R7601 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R7603 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R7605 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R7606 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R7607 | NRSA63D-332X | MG RESISTOR | 3.3kΩ 1/16W D | |
| R7608 | NRSA63J-106X | MG RESISTOR | 10MΩ 1/16W J | |
| R7609 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R7610 | NRSA63J-0R0X | MG RESISTOR | 0Ω 1/16W J | |
| R7703 | NRSA63J-332X | MG RESISTOR | 3.3kΩ 1/16W J | |
| R7705 | NRSA63J-911X | MG RESISTOR | 910Ω 1/16W J | |
| R7706 | NRSA63J-200X | MG RESISTOR | 20Ω 1/16W J | |

| MODEL | MARK |
|---|---|
| GZ-MG27US | A |
| GZ-MG37US | B |
| GZ-MG39UC | C |

| ⚠ Symbol No. | Part No. | Part Name | Description | Local |
|---|---|---|---|---|
| L7602 | NQL38DK-101X | P COIL | 100uH K | |
| CN7601 | QGF0508F3-12X | CONNECTOR | KIN OPE FFC/FPC (1-12) | |
| CN7602 | QGF0508F3-12X | CONNECTOR | KIN OPE FFC/FPC (1-12) | |
| CN7603 | QGF0534F2-36X | CONNECTOR | KIN LCD FFC/FPC (1-36) | |
| CN7701 | QGF0508F3-06X | CONNECTOR | LED BL FFC/FPC (1-6) | |
| S7501 | NSW0288-001X | TACT SWITCH | CROSSKEY | |
| S7502 | NSW0198-001X | TACT SWITCH | MENU | |
| OT1 | QAL0687-001 | FPC | | |

# SPECIFICATION

**■Camcorder**

| | | | |
|---|---|---|---|
| For General | Power supply | | DC 11.0 V (Using AC Adapter)<br>DC 7.2 V (Using battery pack) |
| | Power consumption | | Approx. 3.9 (4.1)* W<br>* When using the LED light<br>Approx. 6.5 W (Maximum; when charging a battery) |
| | Dimensions (W × H × D) | | 68 mm × 69 mm × 109 mm (2-11/16" × 2-3/4" × 4-5/16") |
| | Weight | | Approx. 340 g (0.75 lbs) (without battery, lens cap and strap)<br>Approx. 400 g (0.89 lbs) (incl. battery, lens cap and strap) |
| | Operating temperature | | 0°C to 40°C (32°F to 104°F) |
| | Operating humidity | | 35% to 80% |
| | Storage temperature | | -20°C to 50°C (-4°F to 122°F) |
| | Pickup | | 1/6" (680,000 pixels) CCD |
| | Lens | | F 2.0 to 4.5, f = 2.3 mm to 73.6 mm, 32:1 power zoom lens |
| | Filter diameter | | Ø30.5 mm |
| | LCD monitor | | 2.7" diagonally measured, LCD panel/TFT active matrix system |
| | Speaker | | Monaural |
| | Flash | | Within 1.5 m (4.9 ft) (recommended shooting distance) |
| For Video/Audio | Format | | SD-VIDEO |
| | Recording/Playback format | Video | MPEG-2 |
| | | Audio | Dolby Digital (2 ch) |
| | Signal format | | NTSC standard |
| | Recording mode (video) | | ULTRA FINE: 720 × 480 pixels, 8.5 Mbps (VBR)<br>FINE: 720 × 480 pixels, 5.5 Mbps (VBR)<br>NORMAL: 720 × 480 pixels, 4.2 Mbps (VBR)<br>ECONOMY: 352 × 240 pixels, 1.5 Mbps (VBR) |
| | Recording mode (audio) | | ULTRA FINE: 48 kHz, 384 kbps<br>FINE: 48 kHz, 384 kbps<br>NORMAL: 48 kHz, 256 kbps<br>ECONOMY: 48 kHz, 128 kbps |
| For Still image | Format | | JPEG |
| | Image size | | One mode (640 × 480) |
| | Picture quality | | 2 modes (FINE/STANDARD) |
| For Connectors | AV | S-Video output | Y:1.0 V (p-p), 75Ω, analog, C:0.29V (p-p), 75Ω, analog |
| | | Video output | 1.0 V (p-p), 75 kΩ, analog |
| | | Audio output | 300 mV (rms), 1 kΩ, analog, stereo |
| | USB | | Mini USB type A and type B, USB 2.0 compliant |

**■AC Adapter**

| | |
|---|---|
| Power requirement | AC 110 V to 240 V, 50 Hz/60 Hz |
| Output | DC 11 V, 1 A |

**■Remote Control**

| | |
|---|---|
| Power supply | DC 3 V |
| Battery life | Approx. 1 year (depending on the frequency of use) |
| Operating distance | Within 5 m (16.4 ft) |
| Operating temperature | 0°C to 40°C (32°F to 104°F) |
| Dimensions (W × H × D) | 45 mm × 13 mm × 105 mm (1-13/16" × 1-1/2" × 4-3/16") |
| Weight | Approx. 40 g (0.09 lbs) (incl. battery) |

Design and specifications subject to change without notice.

# SECTION 1
# PRECAUTIONS

## 1.1 SAFTY PRECAUTIONS

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold.However,in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

### 1.1.1 Precautions during Servicing

(1) Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product.When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

(2) Parts identified by the ⚠symbol and shaded ( ) parts are critical for safety.
Replace only with specified part numbers.

**NOTE :**
**Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.**

(3) Fuse replacement caution notice.
Caution for continued protection against fire hazard.
Replace only with same type and rated fuse(s) as specified.

(4) Use specified internal wiring. Note especially:
- Wires covered with PVC tubing
- Double insulated wires
- High voltage leads

(5) Use specified insulating materials for hazardous live parts. Note especially:
- Insulation Tape
- PVC tubing
- Spacers
- Insulation sheets for transistors
- Barrier

(6) When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

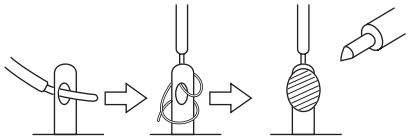


Fig.1-1-1

(7) Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

(8) Check that replaced wires do not contact sharp edged or pointed parts.

(9) When a power cord has been replaced, check that 10-15 kg of force in any direction will not loosen it.

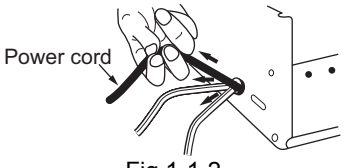



Fig.1-1-2

(10) Also check areas surrounding repaired locations.

(11) Products using cathode ray tubes (CRTs)In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits.Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

(12) Crimp type wire connectorIn such cases as when replacing the power transformer in sets where the connections between the power cord and power trans former primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.
- **Connector part number** :E03830-001
- **Required tool** : Connector crimping tool of the proper type which will not damage insulated parts.
- **Replacement procedure**
  a) Remove the old connector by cutting the wires at a point close to the connector.Important : Do not reuse a connector (discard it).

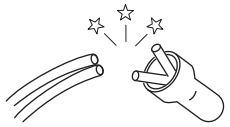



Fig.1-1-3

b) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

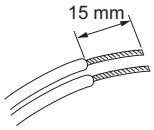



Fig.1-1-4

c) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

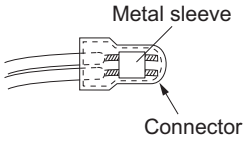



Fig.1-1-5

d) As shown in Fig.1-1-6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

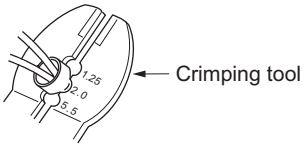



Fig.1-1-6

e) Check the four points noted in Fig.1-1-7.

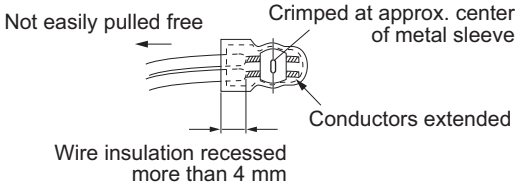

Not easily pulled free
Crimped at approx. center of metal sleeve
Conductors extended
Wire insulation recessed more than 4 mm

Fig.1-1-7

### 1.1.2 Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions, Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

(1) Insulation resistance test
Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).See table 1 below.

(2) Dielectric strength test
Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See Fig.1-1-11 below.

(3) Clearance distance
When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See Fig.1-1-11 below.

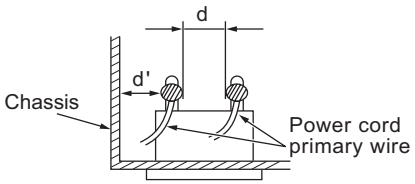


Fig.1-1-8

(4) Leakage current test
Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).
Measuring Method : (Power ON)Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See Fig.1-1-9 and following Fig.1-1-12.

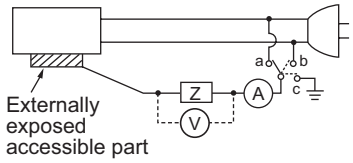
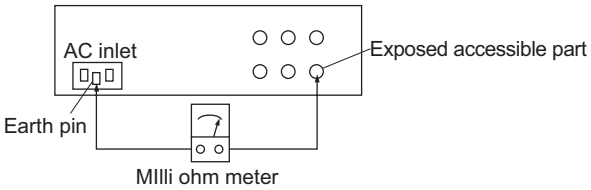


Fig.1-1-9

(5) Grounding (Class 1 model only)
Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).Measuring Method:
Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See Fig.1-1-10 and grounding specifications.




Grounding Specifications

| Region | Grounding Impedance (Z) |
|---|---|
| USA & Canada | Z ≦ 0.1 ohm |
| Europe & Australia | Z ≦ 0.5 ohm |

Fig.1-1-10

| AC Line Voltage | Region | Insulation Resistance (R) | Dielectric Strength | Clearance Distance (d), (d') |
|---|---|---|---|---|
| 100 V | Japan | R≧ 1 MΩ/500 V DC | AC 1 kV 1 minute | d, d' ≧ 3 mm |
| 100 to 240 V | | | AC 1.5 kV 1 minute | d, d' ≧ 4 mm |
| 110 to 130 V | USA & Canada | 1 MΩ ≦R≦ 12 MΩ/500 V DC | AC 1 kV 1 minute | d, d' ≧ 3.2 mm |
| 110 to 130 V<br>200 to 240 V | Europe & Australia | R≧ 10 MΩ/500 V DC | AC 3 kV 1 minute (Class Ⅱ)<br>AC 1.5 kV 1 minute (Class Ⅰ) | d ≧ 4 mm<br>d' ≧ 8 mm (Power cord)<br>d' ≧ 6 mm (Primary wire) |

Fig.1-1-11

| AC Line Voltage | Region | Load Z | Leakage Current (i) | a, b, c |
|---|---|---|---|---|
| 100 V | Japan | 1 kΩ | i ≦ 1 mA rms | Exposed accessible parts |
| 110 to 130 V | USA & Canada | 0.15 μF, 1.5 kΩ | i ≦ 0.5 mA rms | Exposed accessible parts |
| 110 to 130 V<br>220 to 240 V | Europe & Australia | 2 kΩ | i ≦ 0.7 mA peak<br>i ≦ 2 mA dc | Antenna earth terminals |
| | | 50 kΩ | i ≦ 0.7 mA peak<br>i ≦ 2 mA dc | Other terminals |

Fig.1-1-12

**NOTE :**
These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

# SECTION 2
# SPECIFIC SERVICE INSTRUCTIONS

## 2.1 DIFFERENCE LIST

**The following table indicate main different points between models GZ-MG27US ,GZ-MG37US and GZ-MG39UC.**

| MODEL NAME | GZ-MG27US | GZ-MG37US | GZ-MG39UC |
|---|---|---|---|
| HDD(BUILT-IN) | 20GB | 30GB | 30GB |
| BATTERY PACK | BN-VF707US | BN-VF707US | BN-VF714US |
| OTHER ACC | NO | NO | Lens protecter |

# SECTION 3
# DISASSEMBLY

## 3.1 BEFORE ASSEMBLY AND DISASSEMBLY

### 3.1.1 Precautions

- Be sure to disconnect the power supply unit prior to mounting and soldering of parts.
- Prior to removing a component part that needs to disconnect its connector(s) and its screw(s), first disconnect the wire(s) from the connector(s), and then remove the screw(s).
- When connecting/disconnecting wires, pay enough attention not to damage the connectors.
- When inserting the flat wire to the connector, pay attention to the direction of the flat wire.
- Be careful in removing the parts to which some spacer or shield is attached for reinforcement or insulation.
- When replacing chip parts (especially IC parts), first remove the solder completely to prevent peeling of the pattern.
- Tighten screws properly during the procedures. Unless otherwise specified, tighten screws at a torque of 0.098N·m (1.0kgf·cm). However, as this is a required value at the time of production, use the value as a measuring stick when proceeding repair services. (See "SERVICE NOTE" as for tightening torque.)

### 3.1.2 Destination of connectors

*Two kinds of double-arrows in connection tables respectively show kinds of connector/wires.*

⇔ : Flat wire ↔ : Wire ⬌ : Board to board (B-B)
: The connector of the side to remove

| CONN. No. | CONNECTOR | | | | | PIN No. |
|---|---|---|---|---|---|---|
| CN2a | MAIN | CN101 | ⇔ | MONI BW | CN761 | 40 |
| CN2b | MAIN | CN103 | ⇔ | MINI BW | CN762 | 10 |

### 3.1.3 Disconnection of connectors (Wires)

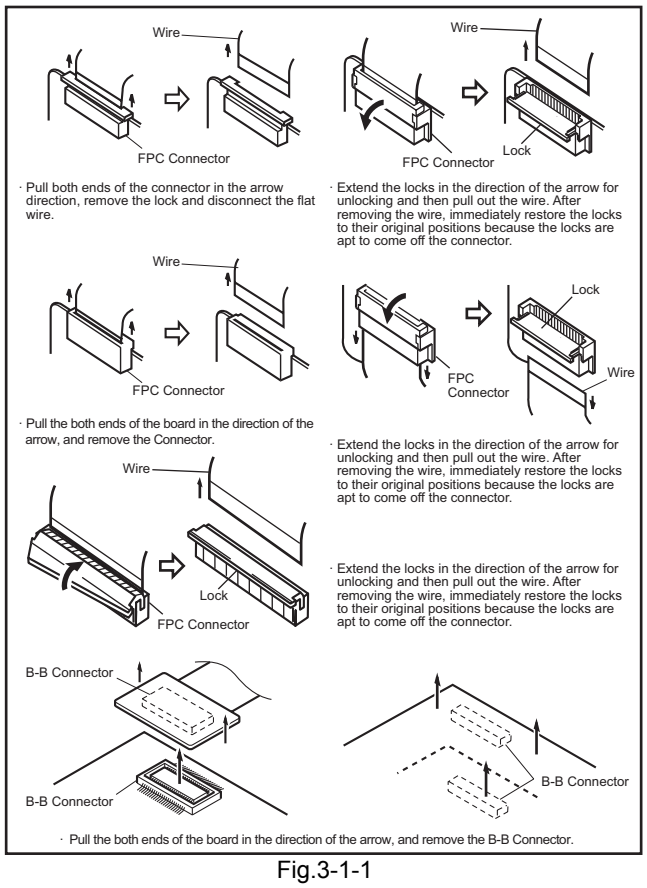

Wire
FPC Connector
· Pull both ends of the connector in the arrow direction, remove the lock and disconnect the flat wire.
Wire
Lock
FPC Connector
· Extend the locks in the direction of the arrow for unlocking and then pull out the wire. After removing the wire, immediately restore the locks to their original positions because the locks are apt to come off the connector.
Wire
FPC Connector
· Pull the both ends of the board in the direction of the arrow, and remove the Connector.
Lock
FPC Connector
Wire
· Extend the locks in the direction of the arrow for unlocking and then pull out the wire. After removing the wire, immediately restore the locks to their original positions because the locks are apt to come off the connector.
Wire
Lock
FPC Connector
· Extend the locks in the direction of the arrow for unlocking and then pull out the wire. After removing the wire, immediately restore the locks to their original positions because the locks are apt to come off the connector.
B-B Connector
B-B Connector
B-B Connector
· Pull the both ends of the board in the direction of the arrow, and remove the B-B Connector.

Fig.3-1-1

### 3.1.4 Tools required for disassembly and assembly

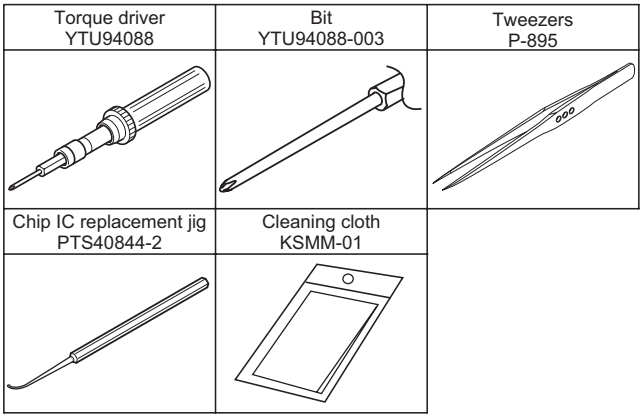



Fig.3-1-2

- **Torque driver**
  Be sure to use to fastening the mechanism and exterior parts because those parts must strictly be controlled for tightening torque.
- **Bit**
  This bit is slightly longer than those set in conventional torque drivers.
- **Tweezers**
  To be used for removing and installing parts and wires.
- **Chip IC replacement jig**
  To be used for replacement of IC.
- **Cleaning cloth**
  Recommended cleaning cloth to wipe down the video heads, mechanism (tape transport system), optical lens surface.

## 3.2 ASSEMBLY AND DISASSEMBLY OF MAIN PARTS

### 3.2.1 Assembly and disassembly

When reassembling, perform the step(s) in reverse order.

| STEP No. | PART | Fig. No. | POINT | NOTE |
|---|---|---|---|---|
| [1] | TOP COVER ASSY | C1 | 4(S1a), 3(L1a),CN1a | - |
| [2] | UPPER ASSY (Inc. VF ASSY, SPEAKER/MONITOR) | C2-1 | (S2a),2(S2b),3(S2c) 2(SD1a), L2,CN2a,b | - |
| [8] | E.VF UNIT(B/W) | C2-2 | 2(S8),L8,CN8a | NOTE 8 |
| (∗1) | (∗2) | (∗3) | (∗4) | (∗5) |

(∗1) Order of steps in Procedure
When reassembling, preform the step(s) in the reverseorder. These numbers are also used as the identification (location) No. of parts Figures.
(∗2) Part to be removed or installed.
(∗3) Fig. No. showing Procedure or Part Location.
(∗4) Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped or unsoldered.
S = Screw L = Lock, Release, Hook
SD = Solder CN = Connector

**[Example]**

- 4 (S1a) = Remove 4 S1a screws.
- 3 (L1a) = Disengage 3 L1a hooks.
- 2 (SD1a) = Unsolder 2 SD1a points.
- CN1a = Remove a CN1a connector.

(∗5) Adjustment information for installation.

### 3.2.2 ASSEMBLY/DISASSEMBLY OF CABINET PARTS AND ELECTRICAL PARTS

● **Disassembly procedure**

| STEP No. | PART NAME | Fig. No. | POINT | NOTE |
|---|---|---|---|---|
| [1] | BOTTOM COVER ASSY | CA1 | 3(S1),3(L1) | - |
| [2] | HDD COVER ASSY | FA1 | GRIP BELT,2(S2), JACK COVER(DC),L2a,b,c,d | NOTE2a,b,c,d |
| [3] | HDD | FA2 | CN3 | NOTE3a,b |
| [4] | HDD CASE ASSY | FA3 | 3(S4a),2(S4b) | - |
| [5] | TOP COVER(ZOOM) | FA4 | CN5,JACK COVER(REAR),S5,L5a,b | NOTE5 |
| [6] | ZOOM UNIT | | SHIELD(ZOOM),2(S6),2(L6) | NOTE6 |
| [7] | REAR BOARD ASSY | FA5 | 4(S7),2(L7a),JACK COVER(REAR), CN7a,b,L7b,REAR UNIT | NOTE7 |
| [8] | MONI. LOCK CASE ASSY | FA6 | 2(S8),2(L8) | - |
| [9] | FRONT COVER ASSY | FA7 | 2(S9a),S9b,CN9 | - |
| [10] | MIC | FA8 | 2(S10),L10,BKT(MIC) | NOTE10 |
| [11] | UPPER ASSY | FA9 | S11,L11a,SHIELD(FRAME), 4(S11),L11b,CN11 | - |
| [12] | MONITOR ASSY | UA1 | S12a,CN12,2(S12b),2(L12) | NOTE12a,b |
| [13] | OPE BOARD ASSY | UA2 | S13,INTER RUPTER, 3(S13),CN13,L13 | NOTE13a,b |
| [14] | TOP COVER(U) ASSY | UA3 | 2(S14),2(L14) | - |
| [15] | POWER SW ASSY | | 2(S15),2(L15) | - |
| [16] | SPEAKER | UA4 | 4(S16),L16a,b,BKT(UPPER) | NOTE16 |
| [17] | MAIN BOARD ASSY | FA10 | CN17a,b,2(S17) | NOTE17 |
| [18] | OP BLOCK ASSY | FA11 | 3(S18) | NOTE18 |

**NOTE2a:**
During the procedure, leave the GRIP BELT removed from the hook.

**NOTE2b:**
When removing the HDD COVER ASSY, leave the JACK COVER (DC) released.

**NOTE2c:**
During the procedure, be careful not to damage the tabs.

**NOTE2d:**
When removing the HDD COVER ASSY, be careful in handling as the HDD may come off.

**NOTE3a:**
During the procedure, be careful in handling the HDD. Make sure not to give any shock to the HDD.

**NOTE3b:**
When attaching the HDD, check the positions of the marks, and be careful with the GEL lift.

**NOTE5:**
The screw (No.11) is located under the JACK COVER (REAR).

**NOTE6:**
Do not disassemble the ZOOM UNIT if not needed as the SHIELD (ZOOM) is attached to the terminals.

**NOTE7:**
When removing the REAR UNIT, be careful in handling as the JACK COVER (REAR) comes off together.

**NOTE10:**
When attaching the MIC, be careful with the MIC wiring.

**NOTE12a:**
Remove the screw (No.30), which tightens up the FPC, before connecting/ disconnecting the FPC to/ from the connector.

**NOTE12b:**
Refer to 3.2.3 ASSEMBLY/DISASSEMBLY OF [12] MONITOR ASSEMBLY for the disassembly of the MONITOR ASSY.

**NOTE13a:**
When attaching the two switches (POWER, MODE), be careful with the attachment locations. Attach the levers and switches fixed to one direction as they can be fixed (except the MODE switch lever). After the attachment, check the operation by moving the switch levers.

**NOTE13b:**
When attaching the SPEAKER WIRE, be careful in the wiring and not to catch the WIRE in between.

**NOTE16:**
When attaching the SPEAKER, be careful with the attachment location. Attach the OPE BOARD ASSY first, and then follow the figure for the SPKEAKER wiring.

**NOTE17:**
When attaching the MAIN BOARD ASSY, make sure to insert the corner of the MAIN BOARD ASSY into the slit of the FRAME ASSY.

**NOTE18:**
Refer to 3.2.4 ASSEMBLY/DISASSEMBLY OF [18] OP BLOCK ASSEMBLY/CCD BOARD ASSEMBLY.

● **Destination of connectors**

| CN. No. | CONNECTOR | | | | | PIN No. |
|---|---|---|---|---|---|---|
| CN3 | HDD | - | ⇔ | MAIN | CN102 | 40 |
| CN5 | MAIN | CN104 | ⇔ | ZOOM UNIT | - | 6 |
| CN7a | MAIN | CN103 | ⇔ | REAR | CN6001 | 53 |
| CN7b | REAR | CN6002 | ⇔ | TRIG SW | - | 6 |
| CN9 | MAIN | CN107 | ↔ | MIC | - | 4 |
| CN11 | MAIN | CN101 | ⇔ | OPERATION | CN401 | 50 |
| CN12 | OPERATION | CN402 | ⇔ | MONI-BL | CN7601,7602 | 24/12,12 |
| CN13 | OPERATION | CN403 | ↔ | SPEAKER | - | 2 |
| CN17a | MAIN | CN105 | ⇔ | CCD | CN5001 | 24 |
| CN17b | MAIN | CN106 | ⇔ | OP BLOCK | - | 26 |

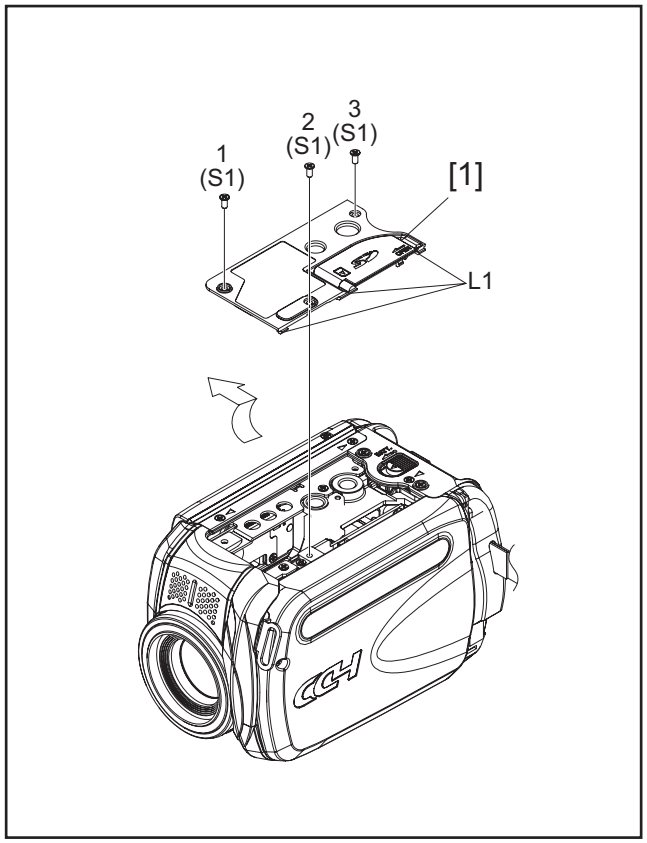



Fig.CA1

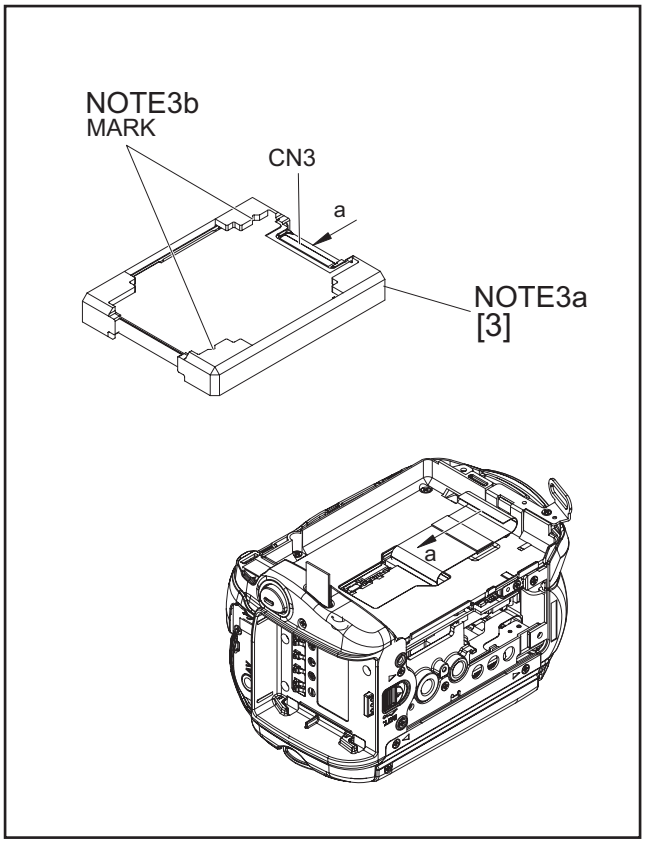



Fig.FA2

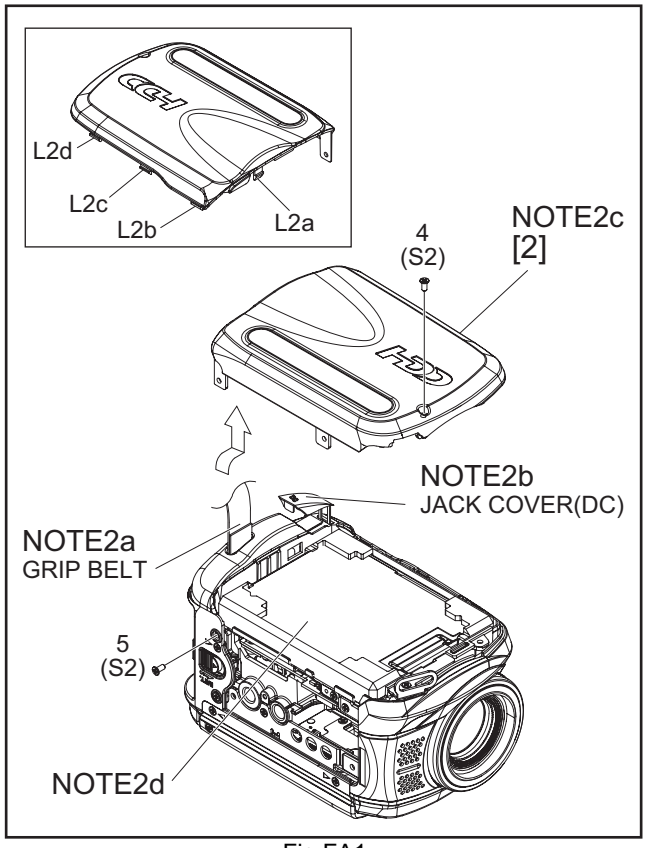



Fig.FA1

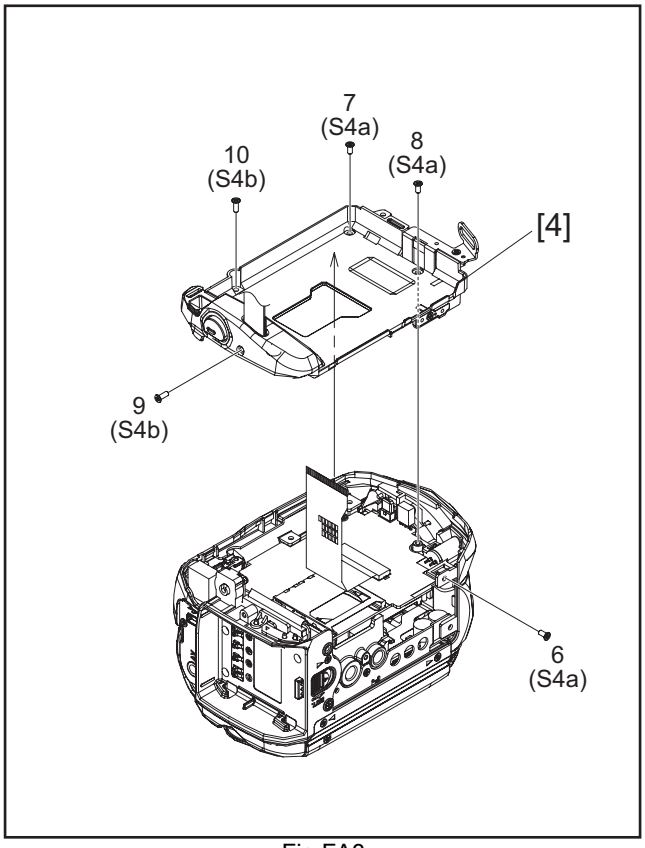



Fig.FA3

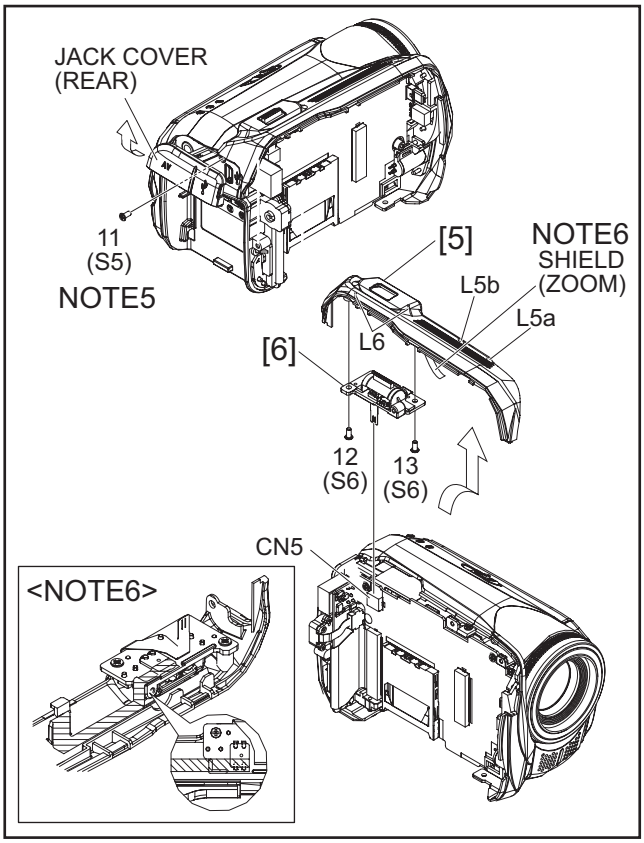



Fig.FA4

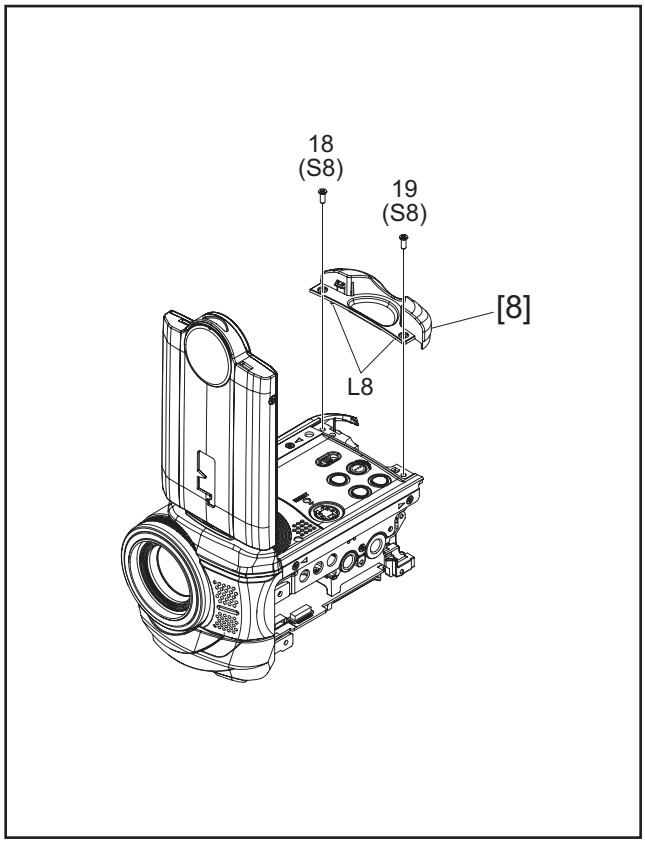



Fig.FA6

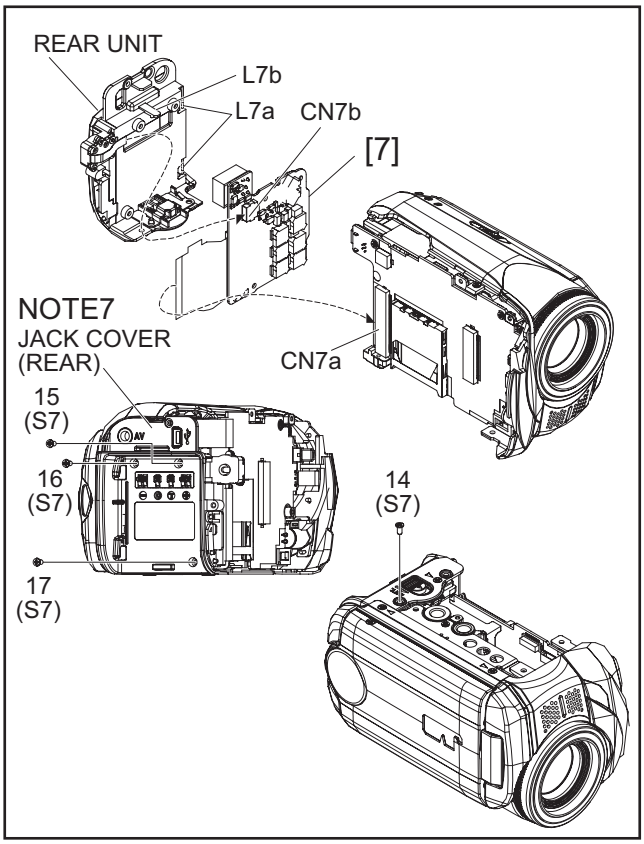



Fig.FA5

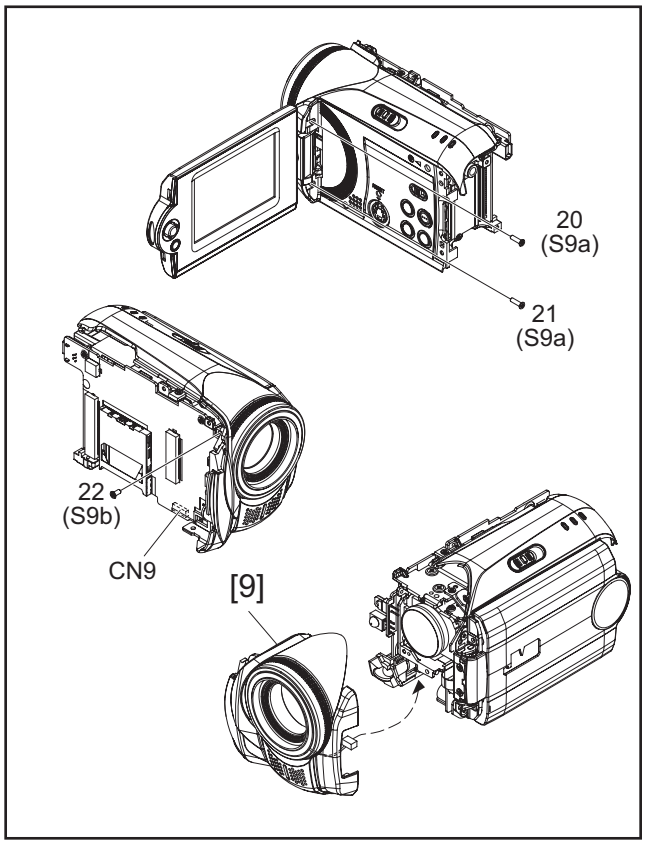



Fig.FA7

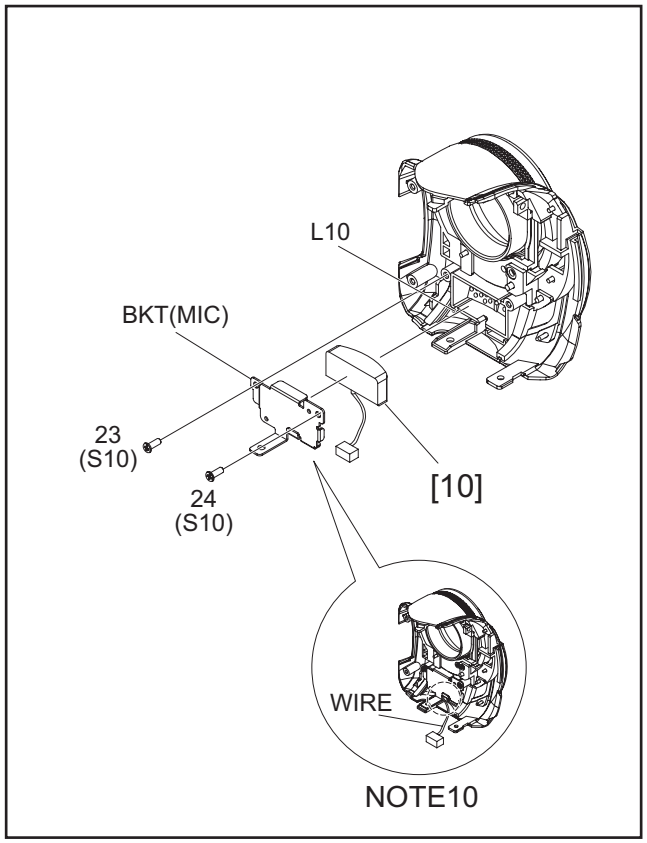



Fig.FA8

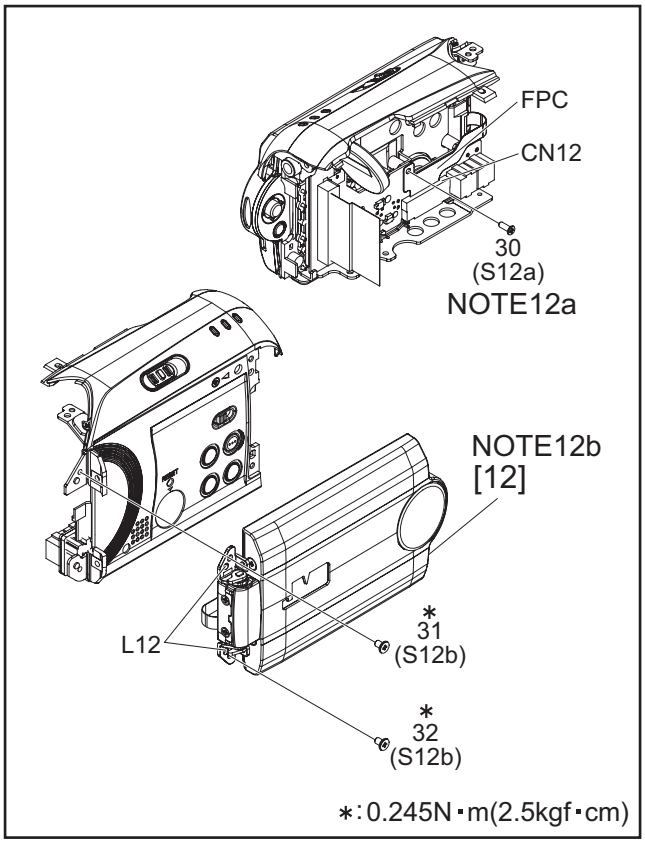



Fig.UA1

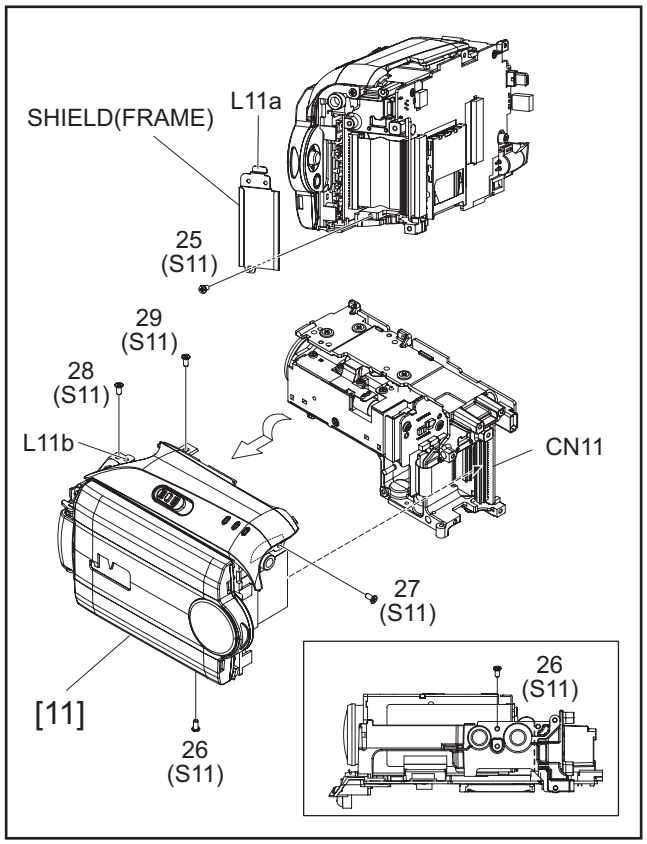



Fig.FA9

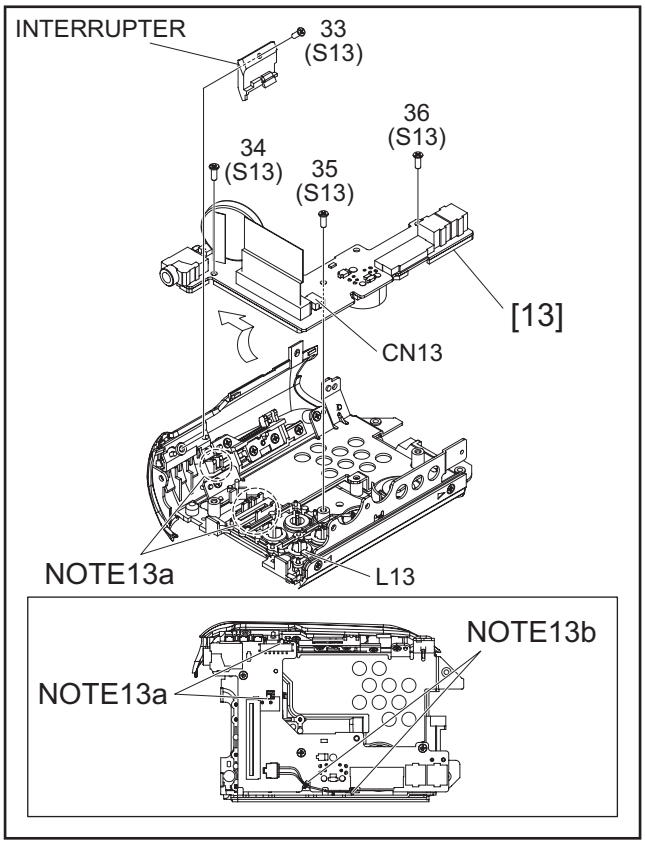



Fig.UA2

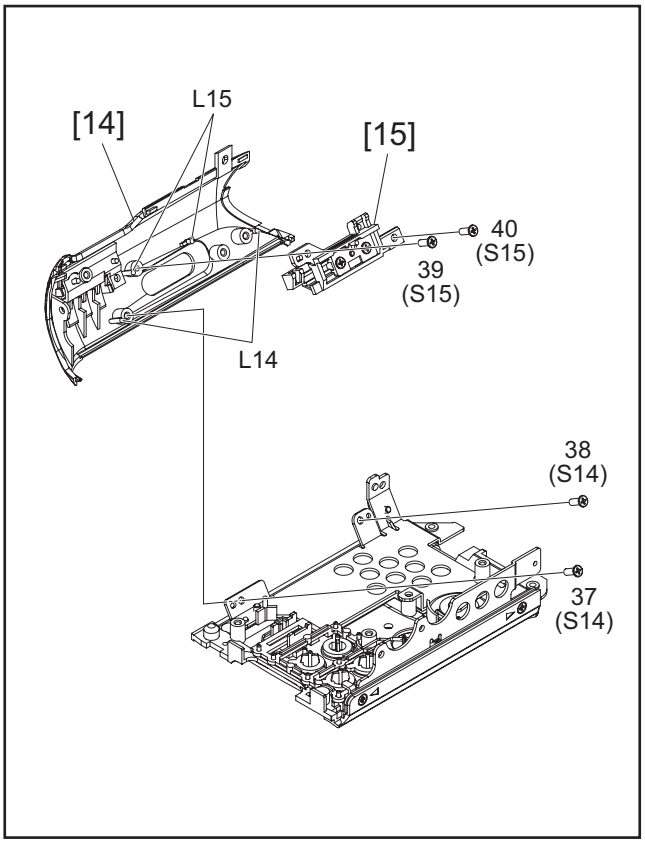



Fig.UA3

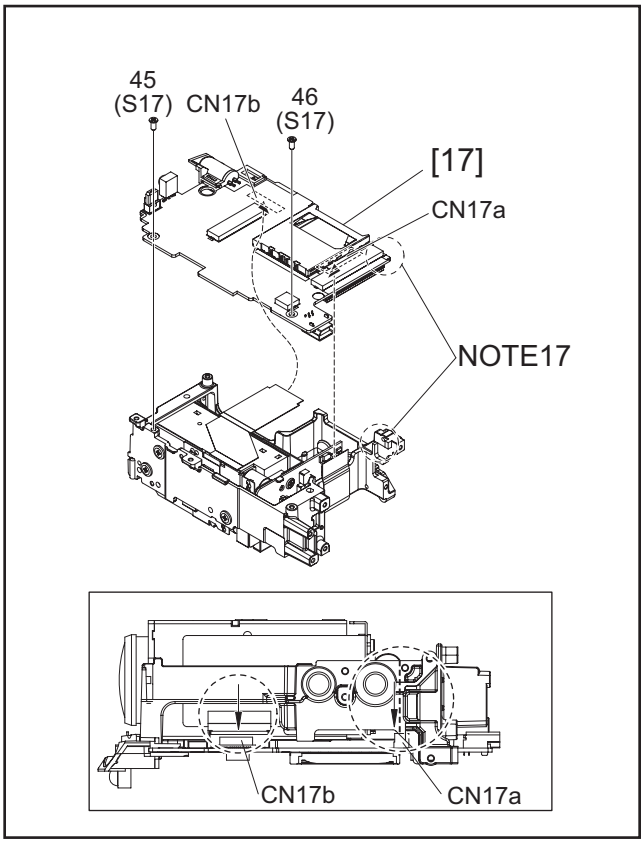



Fig.FA10

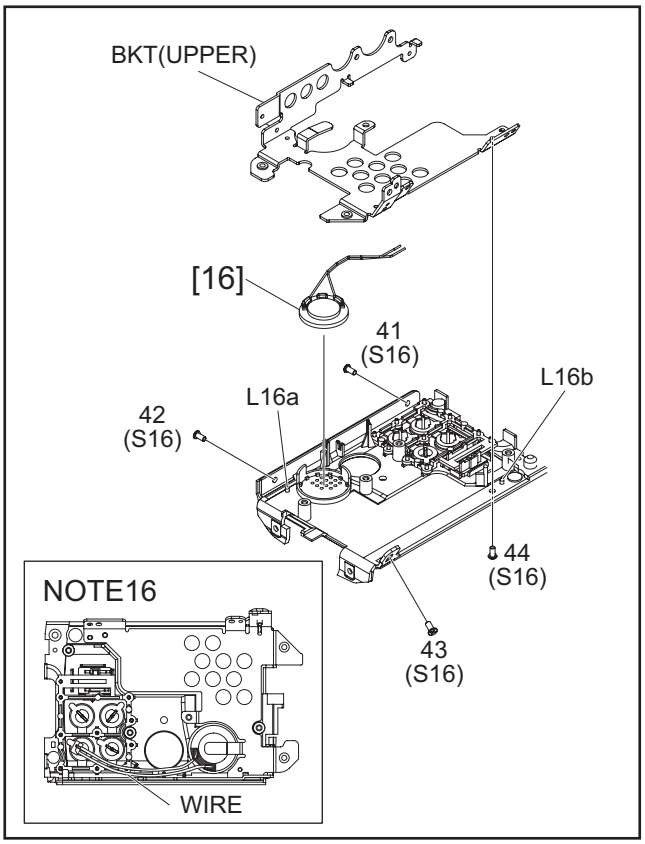



Fig.UA4

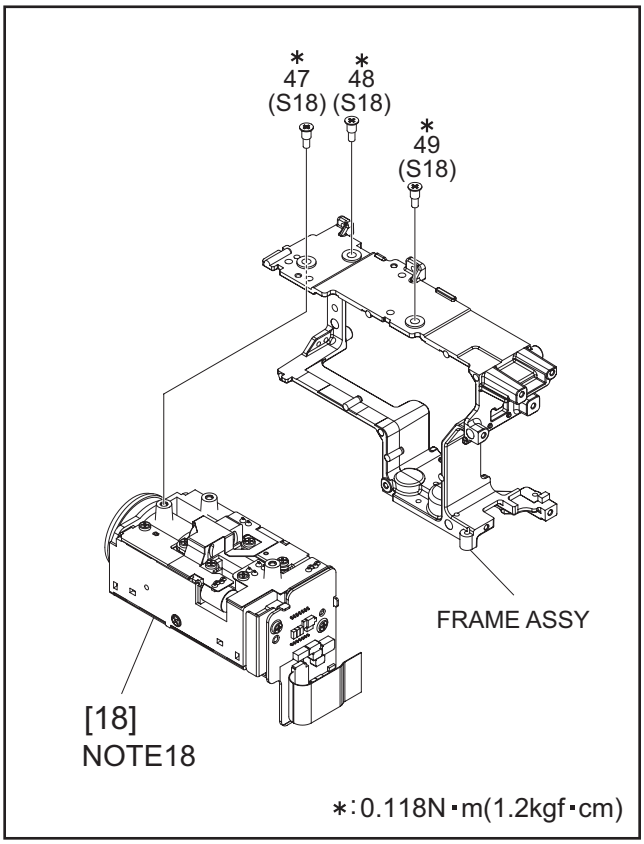



Fig.FA11

### 3.2.3 ASSEMBLY/DISASSEMBLY OF [12] MONITOR ASSEMBLY

**●CAUTIONS**

(1) Remove the MONITOR ASSEMBLY from the UPPER ASSEMBLY first, as they are removed together in main parts disassembly, and then proceed to the disassembly procedure.
(2) During the procedure, be careful in handling the LCD MODULE and other parts. Pay special attention not to damage or soil the monitor screen.If fingerprints are left on the screen, wipe them with clean chamois leather or a cleaning cloth.

**●Removing MONITOR ASSEMBLY**

(1) Turn the HINGE UNIT ASSEMBLY 90°, and remove the three screws (1-3). Remove the MONITOR COVER ASSEMBLY by removing the six hooks (L12a-f).
(2) Pull out the U/D SWITCH BOARD from the MONITOR CASE ASSEMBLY.

**NOTE12a:**

During the procedure, be careful in handling the FPC.

(3) Release the lock of the connector (CN12a,b), and remove the HINGE UNIT by lifting it up.
(4) Release the lock of the connector (CN12c,d), and pull out the FPC.
(5) Remove the two screws (4,5), and Remove the MONI-BL BOARD ASSEMBLY by removing the hook (L12h).
(6) Remove the BACK LIGHT.
(7) Remove the LCD MODULE.
(8) Remove the LCD BKT.

**●Removing HINGE UNIT ASSEMBLY**

(1) Remove the two screws (6,7), and then remove the HINGE COVER (U,L).

**NOTE12b:**

During the procedure, be careful in handling the MAGNET and be careful with its attachment direction. Make sure to attach the MAGNET with its mark facing inward.

**NOTE12c:**

During the procedure, be careful in handling the FPC.

**NOTE12d:**

The FPC, with its connection to the MONITOR BOARD ASSEMBLY facing inward, is rolled around the axis (shaft) of the HINGE ASSEMBLY rotation 2.5 rounds (2.5times).

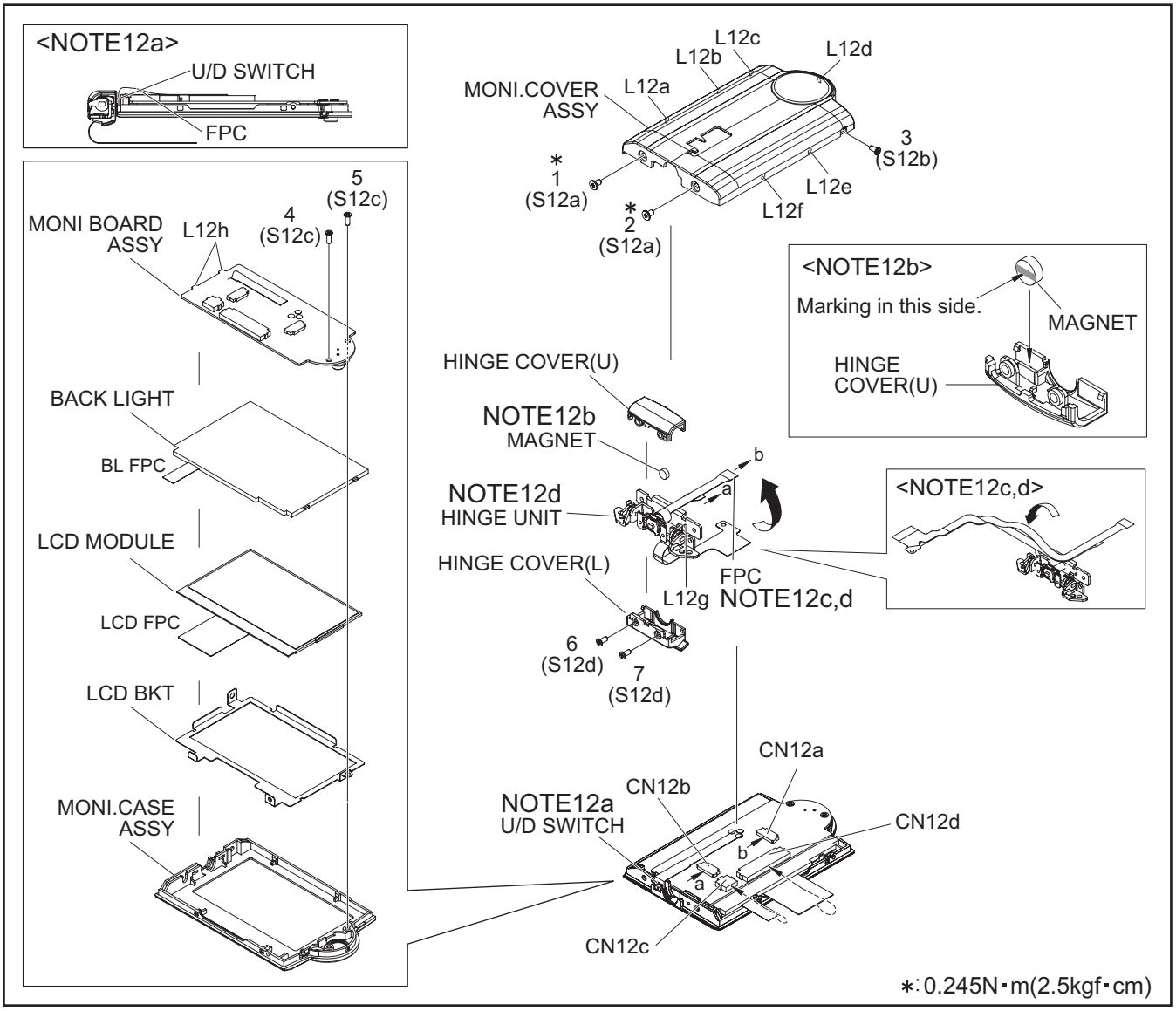



Fig.3-2-3

### 3.2.4 ASSEMBLY/DISASSEMBLY OF [18] OP BLOCK ASSEMBLY/CCD BOARD ASSEMBLY

**●Precautions**

(1) Take care in handling the CCD IMAGE SENSOR, OPTICAL LPF and lens components when performing maintenance etc., especially with regard to surface contamination, attached dust or scratching. If fingerprints are present on the surface they should be wiped away using either a silicon paper, clean chamois or the cleaning cloth.

(2) The CCD IMAGE SENSOR may have been shipped with a protective sheet attached to the transmitting glass. When replacing the CCD IMAGE SENSOR, do not peel off this sheet from the new part until immediately before it is mounted in the OP BLOCK ASSEMBLY.

(3) As the attachment direction of the OPTICAL LPF is important, be careful when removing it. Make sure to reattach the OP LPF in its original direction.

**●Disassembly of OP BLOCK ASSEMBLY / CCD BOARD ASSEMBLY**

(1) Unsolder the fourteen soldered points (SD18a) of the CCD BOARD ASSEMBLY.

(2) Remove the two screws (1, 2), and then remove the CCD BOARD ASSEMBLY, SHIELD CCD and the CCD BASE ASSEMBLY.

**NOTE18a:**

Be careful in handling as there are only the OPTICAL LPF and the SHEET stored inside the OP BLOCK ASSY when the CCD BASE ASSY is removed.

**NOTE18b:**

Replace the CCD IMAGE SENSOR as a CCD BASE ASSEMBLY, not as a single part replacement.

**●Assembly of OP BLOCK ASSEMBLY / CCD BOARD ASSEMBLY**

(1) Set the OPTICAL LPF first, and then the SHEET to the OP BLOCK ASSEMBLY.

**NOTE18c:**

Pay careful attention to the orientation of the OPTICAL LPF.

(2) Attach the CCD BASE ASSEMBLY first then the SHIELD CCD, CCD BOARD ASSEMBLY so that the SHEET stays in place, and tighten with the two screws (1, 2).

(3) Solder the 14 points (SD18a) on the CCD BOARD ASSY.

**●Replacement of service repair parts**

The service repair parts for the OP BLOCK ASSEMBLY are as listed below.Take special care not to disconnect any of the FPC wires or cause any damage due to soldering (excessive heating).

(1) FOCUS MOTOR UNIT

(2) ZOOM MOTOR UNIT

(3) AUTO IRIS UNIT

**NOTE18d:**

When replacing the FOCUS MOTOR UNIT or the ZOOM MOTOR UNIT, solder the FPC at a space of about 0.5 mm above the terminal pin.

**NOTE 18e:**

The AUTO IRIS UNIT includes the FPC ASSEMBLY and two sensors.

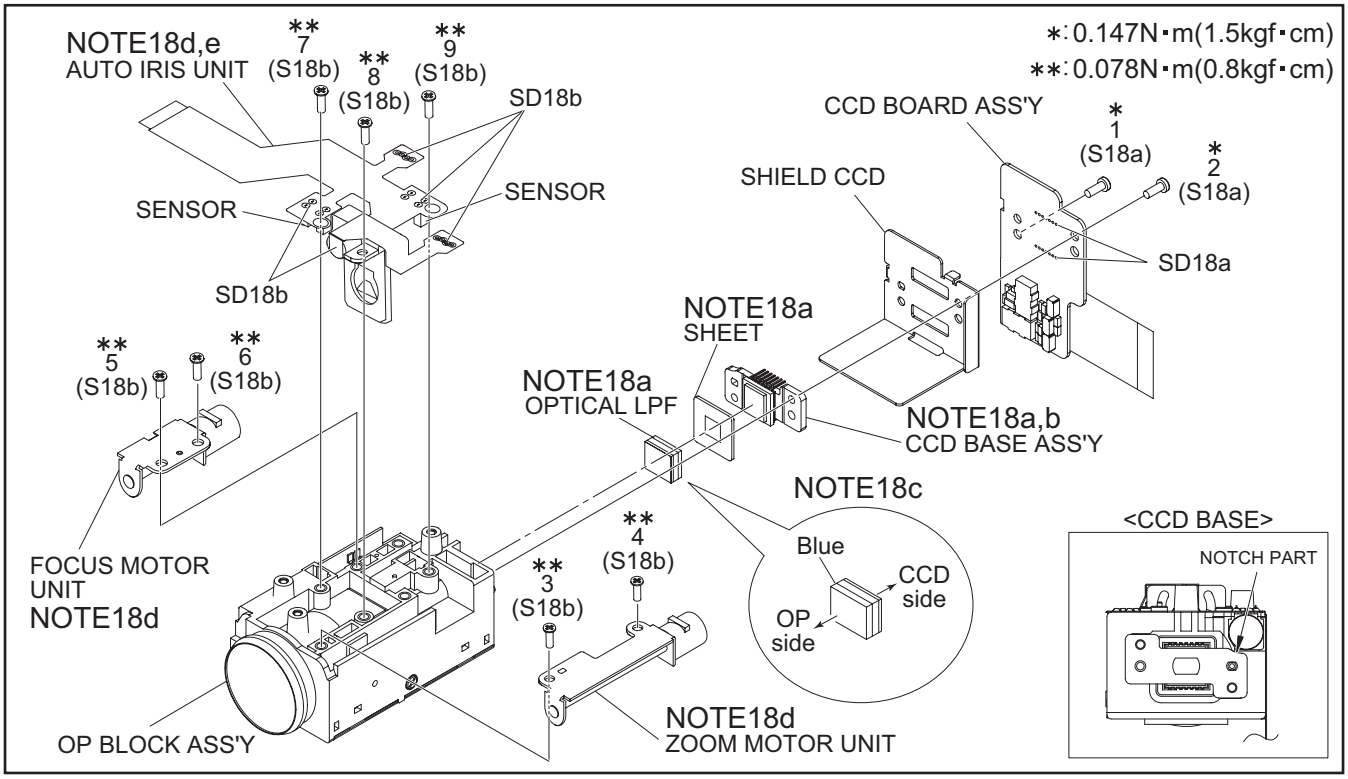



Fig.3-2-4

# SECTION 4
# ADJUSTMENT

## 4.1 PREPARATION

### 4.1.1 Precaution

Camera system and deck system of this model are specially adjusted by using PC.

However, if parts such as the following are replaced, an adjustment is required. The adjustment must be performed in a Service Center equipped with the concerned facilities.

- OP BLOCK ASSEMBLY
- MONITOR ASSEMBLY
- EEP ROM (IC4502 of MAIN board)

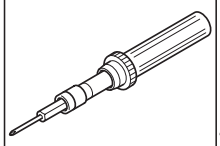
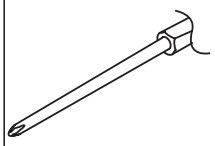
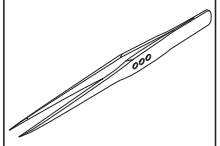
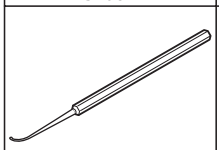
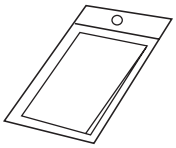
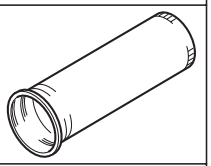
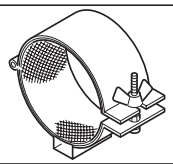
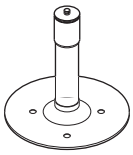
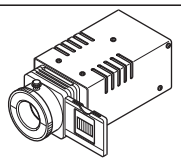
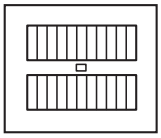
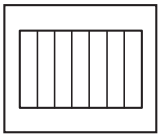
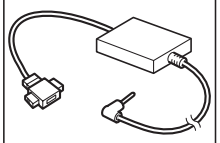
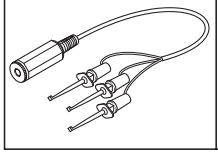
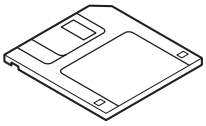
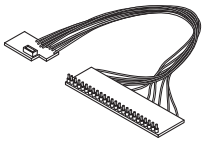
In the event of malfunction with electrical circuits, first find a defective portion with the aid of proper test instruments as shown in the following electrical adjustment procedure, and then commence necessary repair/ replacement/adjustment.

- In observing chip TP, use IC clips, etc. to avoid any stress. Prior to replacement of chip parts (especially IC), remove the solder completely to prevent peeling of the pattern.
- Use a patch cord if necessary. As for a patch cord, see the BOARD INTERCONNECTIONS.
- Since connectors are fragile, carefully handle them in disconnecting and connecting the FPC.

### 4.1.2 REQUIRED TEST EQUIPMENT

- Personal computer (for Windows)
- Color TV monitor
- Oscilloscope (dual-trace type, observable 100MHz or higher frequency). The one observable 300 MHz or higher frequency is recommended.
- Digital voltmeter
- DC power supply or AC adapter
- Frequency counter (with threshold level adjuster)

### 4.1.3 TOOLS REQUIRED FOR ADJUSTMENT

| | | |
|---|---|---|
| Torque Driver<br>YTU94088 | Bit<br>YTU94088-003 | Tweezers<br>P-895 |
|  |  |  |
| Chip IC Replacement Jig<br>PTS40844-2 | Cleaning Cloth<br>KSMM-01 | INF Adjustment Lens<br>YTU92001B |
|  |  |  |
| INF Adjustment Lens Holder<br>YTU94087 | Mini Stand<br>YTU93108 | Light box Assembly<br>YTU93096A |
|  |  |  |
| Gray Scale Chart<br>YTU94133A | Color Bar Chart<br>YTU94133C | PC Cable<br>QAM0099-002 |
|  |  |  |
| Communication Cable<br>YTU93107B | Service Support System<br>YTU94057-94 | Jig Connector Cable<br>YTU93106A |
|  |  |  |

- **Torque driver**
  Be sure to use to fastening the mechanism and exterior parts because those parts must strictly be controlled for tightening torque.
- **Bit**
  This bit is slightly longer than those set in conventional torque drivers.
- **Tweezers**
  To be used for removing and installing parts and wires.
- **Chip IC replacement jig**
  To be used for adjustment of the camera system.
- **Cleaning cloth**
  Recommended the Cleaning cloth to wipe down the video heads, mechanism (tape transport system), optical lens surface.
- **INF adjustment lens**
  To be used for adjustment of the camera system. For the usage of the INF adjustment lens, refer to the Service Bulletin No. YA-SB-10035.

- **INF adjustment lens holder**
  To be used together with the Camera stand for operating the Videocamera in the stripped-down condition such as the status without the exterior parts or for using commodities that are not yet conformable to the interchangeable ring. For the usage of the INF lens holder, refer to the Service Bulletin No. YA-SB-10035.
- **Mini stand**
  To be used together with the INF adjustment lens holder. For the usage of the Mini stand, refer to the Service Bulletin No. YA-SB-10035.
- **Light box assembly**
  To be used for adjustment of the camera system. For the usage of the Light box assembly, refer to the Service Bulletin No. YA-SB-10035.
- **Gray scale chart**
  To be used for adjustment of the camera system. For the usage of the INF adjustment lens, refer to the Service Bulletin No. YA-SB-10035.
- **Color bar chart**
  To be used for adjustment of the camera system. For the usage of the INF adjustment lens, refer to the Service Bulletin No. YA-SB-10035.
- **PC cable**
  To be used to connect the Videocamera and a personal computer with each other when a personal computer issued for adjustment.
- **Communication cable**
  Connect the Communication cable between the PC cable and Jig connector cable when performing a PC adjustment.
- **Service support system**
  To be used for adjustment with a personal computer. Software can be downloaded also from JS-net.
- **Jig connector cable**
  Connected to JIG CONNECTOR of the main board and used for electrical adjustment, etc.

## 4.2 JIG CONNECTOR CABLE CONNECTION

### ■ Connection procedure

**NOTE**

Be sure to turn the power “OFF”, when connecting the JIG CONNECTOR CABLE.
If the JIG CONNECTOR CABLE is connected with the power “ON”, communication error may occur.

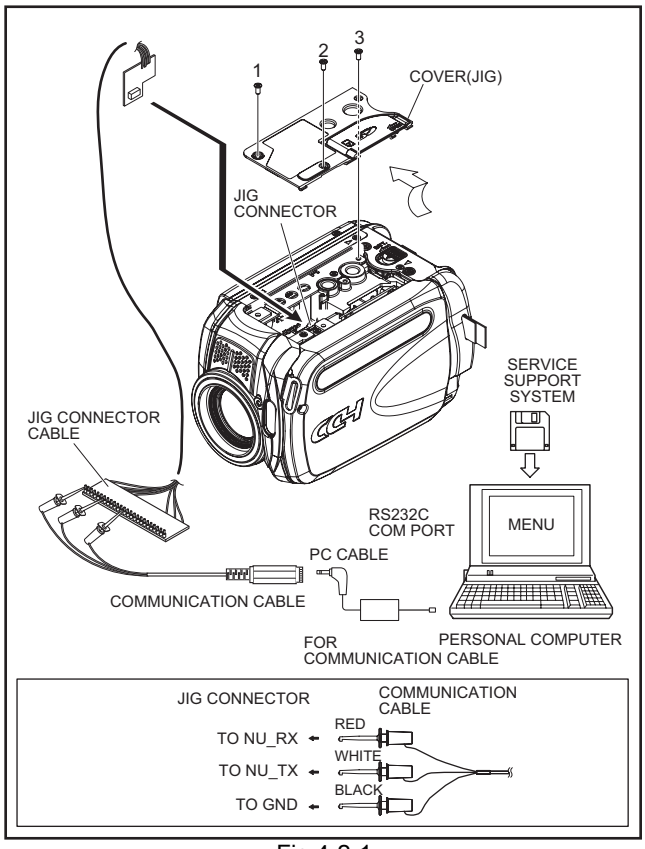
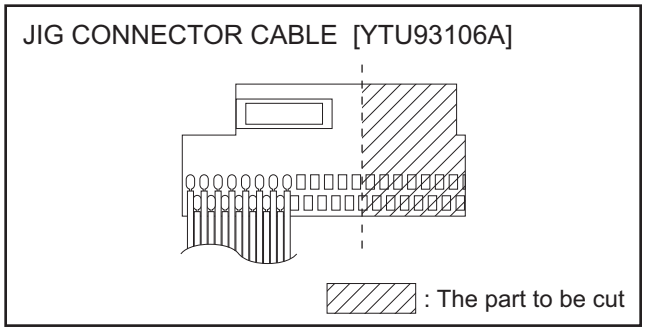



Fig.4-2-1

**CAUTION**

The JIG CONNECTOR CABLE cannot be connected with the COVER (JIG) removed because of its structure. It is necessary to cut a part of the connector board as shown below. Pay special attention during the procedure.



■ **Jig connector diagrams**

JIG CONNECTOR CABLE (YTU93106A)

MAIN CN110

| | | | |
|---|---|---|---|
| ARMTDO | 1 | | |
| ARMTCK | | 16 | |
| ARMTMS | 2 | | |
| ARMTDI | | 17 | |
| XARMTRST | 3 | | |
| XJRESET | | 18 | |
| REG_3.1V | 4 | | |
| NU_RX | | 19 | |
| NU_TX | 5 | | |
| AL_3.1V | | 20 | |
| SJIG_TX | 6 | | |
| SJIG_RX | | 21 | |
| MODO | 7 | | |
| SJIG_RST | | 22 | |
| NC | 8 | | |
| GND | | 23 | |
| MON_B | 9 | | |
| HRP | | 24 | |
| MON_R | 10 | | |
| GND | | 25 | |
| MON_G | 11 | | |
| NC | | 26 | |
| VDCVF | 12 | | |
| NC | | 27 | |
| NC | 13 | | |
| ZGH_OUT | | 28 | |
| ZGH_THRU | 14 | | |
| SBD5 | | 29 | |
| SBT5 | 15 | | |
| WORD | | 30 | |

JIG CONN. BOARD (PIN NO.)

| | |
|---|---|
| 1 | ARMTDO |
| 2 | ARMTMS |
| 3 | XARMTRST |
| 4 | REG_3.1V |
| 5 | NU_TX |
| 6 | SJIG_TX |
| 7 | MODO |
| 8 | NC |
| 9 | MON_B |
| 10 | MON_R |
| 11 | MON_G |
| 12 | VDCVF |
| 13 | NC |
| 14 | ZGH_THRU |
| 15 | SBT5 |
| 16 | ARMTCK |
| 17 | ARMTDI |
| 18 | XJRESET |
| 19 | NU_RX |
| 20 | AL_3.1V |
| 21 | SJIG_RX |
| 22 | SJIG_RST |
| 23 | GND |
| 24 | HRP |
| 25 | GND |
| 26 | NC |
| 27 | NC |
| 28 | ZGH_OUT |
| 29 | SBD5 |
| 30 | WORD |

Fig.4-2-2

CABINET PARTS AND ELECTRICAL PARTS(1)

| Symbol No. | [1] | | | [2] | | [3] | [4] | | | | | [5] | [6] | | [7] | | | | [8] | | [9] | | | [10] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Removing order of screw | 1 | 2 | 3 | 4 | 5 | - | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| Place to stick screw | * | * | * | * | * | - | * | * | * | | | * | | | * | * | * | * | | | | | * | | |
| Reference drawing (Fig.No.) | CA1 | | | FA1 | | FA2 | FA3 | | | | | FA4 | | | FA5 | | | | FA6 | | FA7 | | | FA8 | |
| Screw tightening torque | a | | | | | | | | | | | | | | | | | | | | | | | | |

CABINET PARTS AND ELECTRICAL PARTS(2)

| Symbol No. | [11] | | | | | [12] | | | [13] | | | | [14] | | [15] | | [16] | | | | [17] | | [18] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Removing order of screw | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 |
| Place to stick screw | * | * | * | * | * | | * | * | | | | | | | | | * | * | * | * | * | * | | | |
| Reference drawing (Fig.No.) | FA9 | | | | | UA1 | | | UA2 | | | | UA3 | | | | UA4 | | | | FA10 | | FA11 | | |
| Screw tightening torque | a | | | | | b | | | a | | | | | | | | | | | | | | c | | |

[12]MONITOR ASSY

| Symbol No. | [12] | | | | | | |
|---|---|---|---|---|---|---|---|
| Removing order of screw | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Place to stick screw | * | * | * | | | * | * |
| Reference drawing (Fig.No.) | 3-2-3 | | | | | | |
| Screw tightening torque | b | a | | | | | |

[18]OP BLOCK ASSY/CCD BOARD ASSY

| [18] | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | | | | | | | |
| 3-2-4 | | | | | | | | |
| d | e | | | | | | | |

NOTE:

1 ) * and ** (This mark shows where to attach the screws) : Do not reuse the screws because the screw lock bond was applied to prevent the screws from loosening. Prepare the specified screws and use them in place of the removed screws.

2 )Tightening torque for the screws

- There are setting limits of the torque value for the torque driver. If the value exceeds the setting value, take it as a rough measurement (reference value), and tighten the screw manually.
- The specified torque value is a recommended value of the initial assembly. Therefore, set the value below the specified torque value in the assembling procedure. Be careful not to break either the screws or the screw holes.

a : 0.098N·m (1.0kgf·cm)　b : 0.245N·m (2.5kgf·cm)　c : 0.118N·m (1.2kgf·cm)　d : 0.147N·m (1.5kgf·cm)　e : 0.078N·m (0.8kgf·cm)

JVC
Victor Company of Japan, Limited
Camcorder Category 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan

(No.YF133)

Printed in Japan
VPT

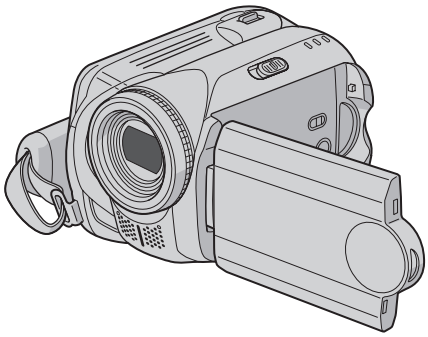
JVC

# SCHEMATIC DIAGRAMS

## HARD DISK CAMCORDER

# GZ-MG27US, GZ-MG37US, GZ-MG39UC

**CD-ROM No.SML200603**



GZ-MG27USM [M6E335],
GZ-MG37USM, GZ-MG39UCM [M6E337]

Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

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**No.YF133SCH**
**2006/3**

# CHARTS AND DIAGRAMS

## NOTES OF SCHEMATIC DIAGRAM

**Safety precautions**
**The Components indentified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.**

**1. Units of components on the schematic diagram**

Unless otherwise specified.

1) All resistance values are in ohm. 1/6 W, 1/8 W (refer to parts list).
   Chip resistors are 1/16 W.
   K: KΩ(1000Ω), M: MΩ (1000KΩ)
2) All capacitance values are in µF, (P: PF).
3) All inductance values are in µH, (m: mH).
4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

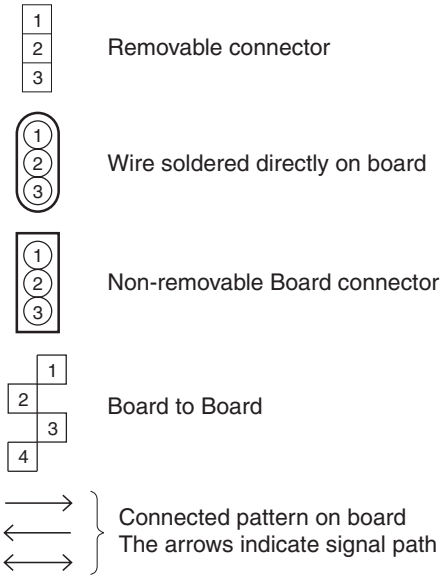
**Note: The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.**

**2. Indications of control voltage**

AUX : Active at high.

$\overline{\text{AUX}}$ or AUX(L) : Active at low.

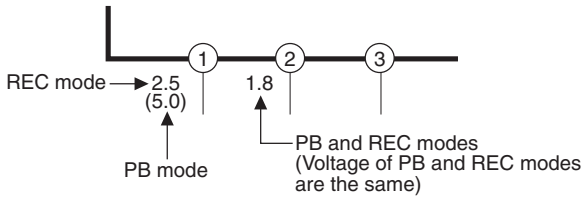
**3. Interpreting Connector indications**




**Note: For the destination of each signal and further line connections that are cut off from the diagram, refer to "BOARD INTERCONNECTIONS"**

**4. Voltage measurement**

1) Regulator (DC/DC CONV) circuits
   REC : Colour bar signal.
   PB : Alignment tape (Colour bar).
   — : Unmeasurable or unnecessary to measure.
2) Indication on schematic diagram
   Voltage indications for REC and PB mode on the schematic diagram are as shown below.

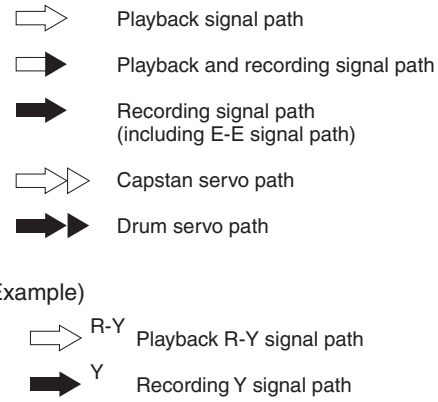



**Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.**

**5. Signal path Symbols**

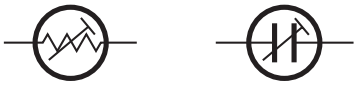
The arrows indicate the signal path as follows.

**NOTE : The arrow is DVC unique object.**




**6. Indication of the parts for adjustments**

The parts for the adjustments are surrounded with the circle as shown below.



**7. Indication of the parts not mounted on the circuit board**

"OPEN" is indicated by the parts not mounted on the circuit board.

## CIRCUIT BOARD NOTES

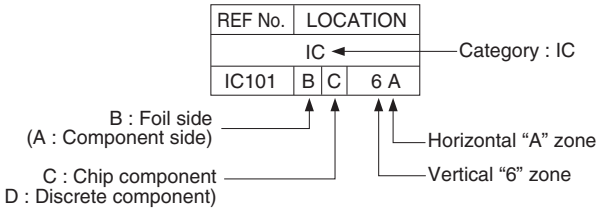
**1. Foil and Component sides**

1) Foil side (B side) :
   Parts on the foil side seen from foil face (pattern face) are indicated.
2) Component side (A side) :
   Parts on the component side seen from component face (parts face) indicated.

rts location are indicated by guide scale on the circuit board.

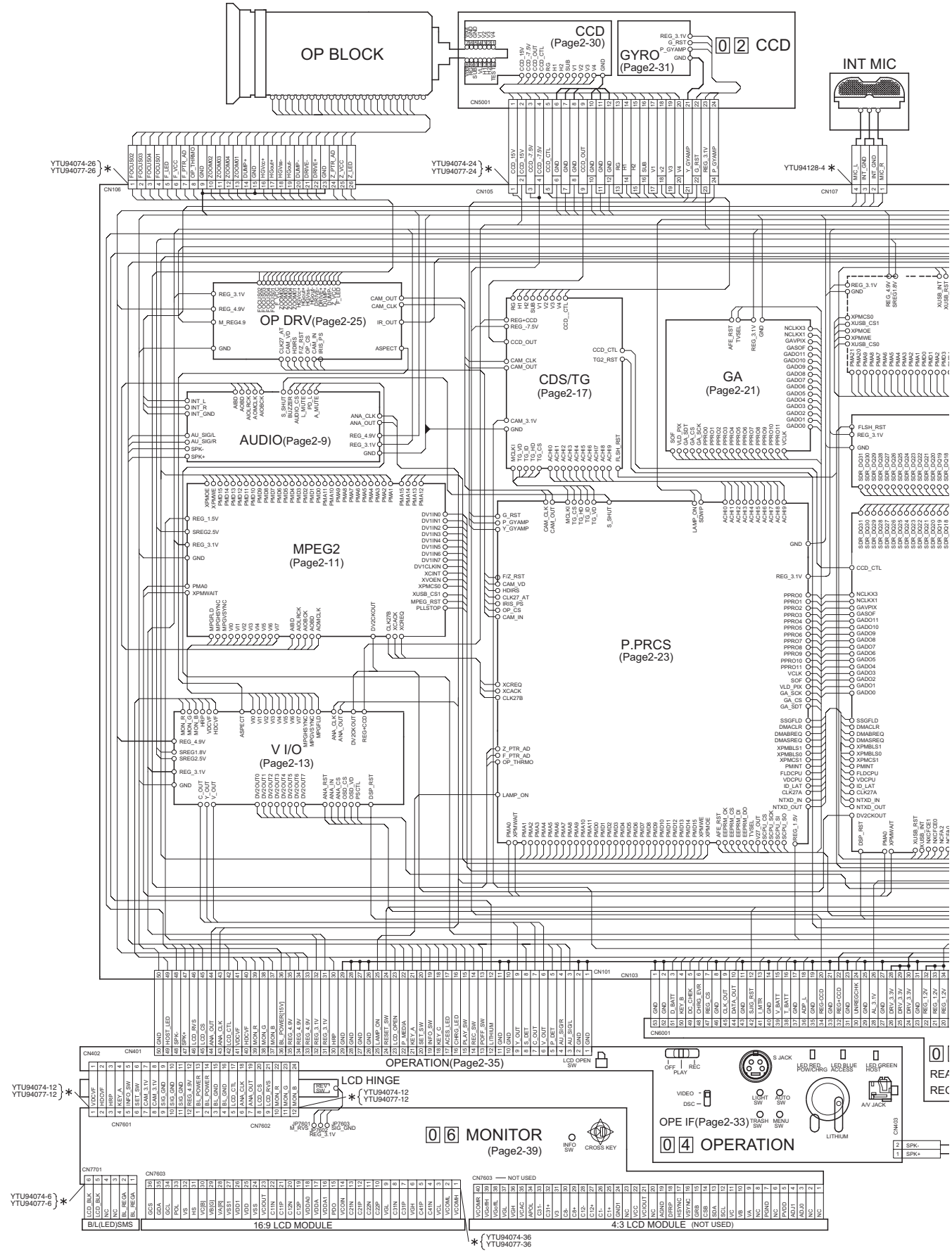
**2. Parts location guides**

Parts location are indicated by guide scale on the circuit board.

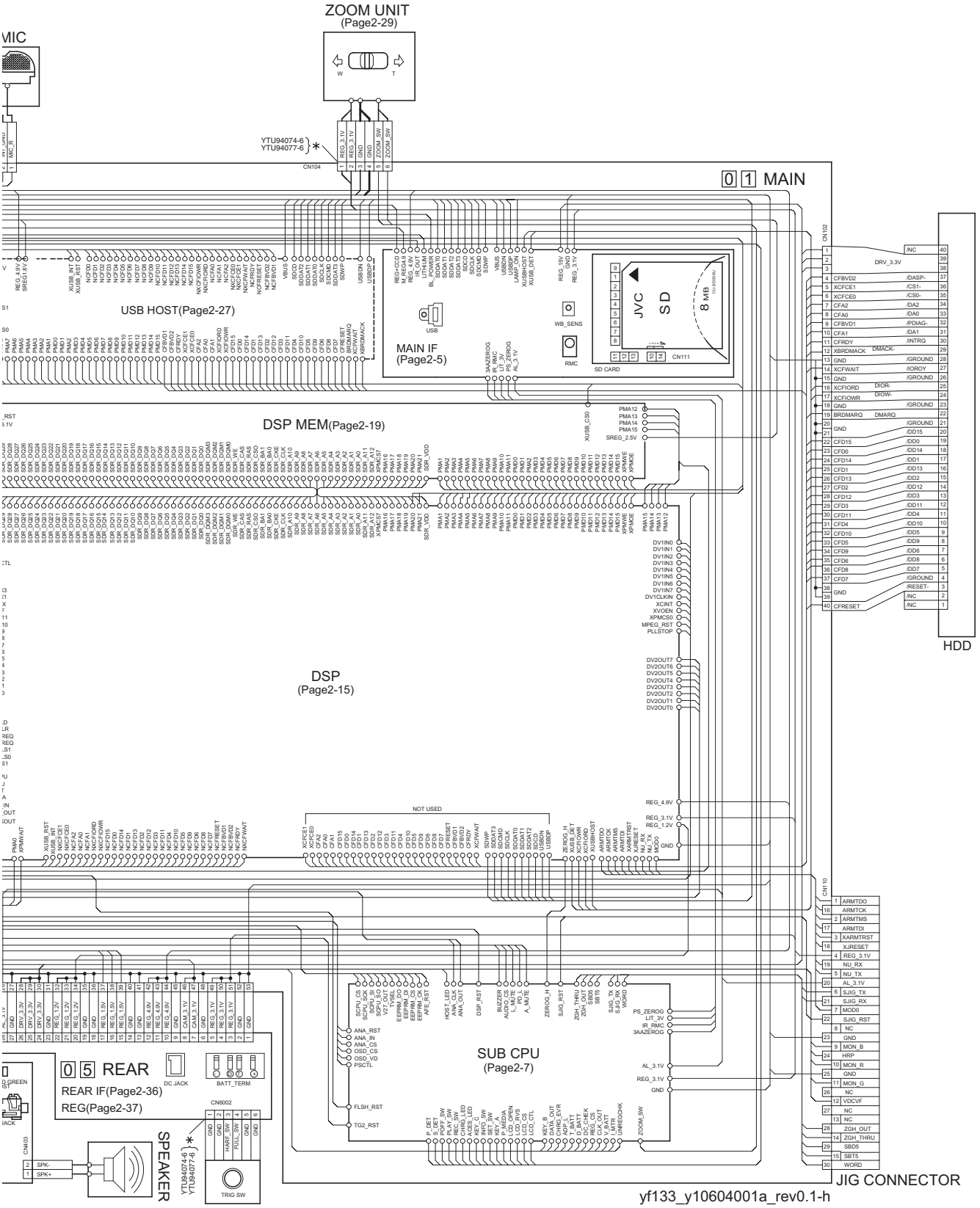



**Note: For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).**

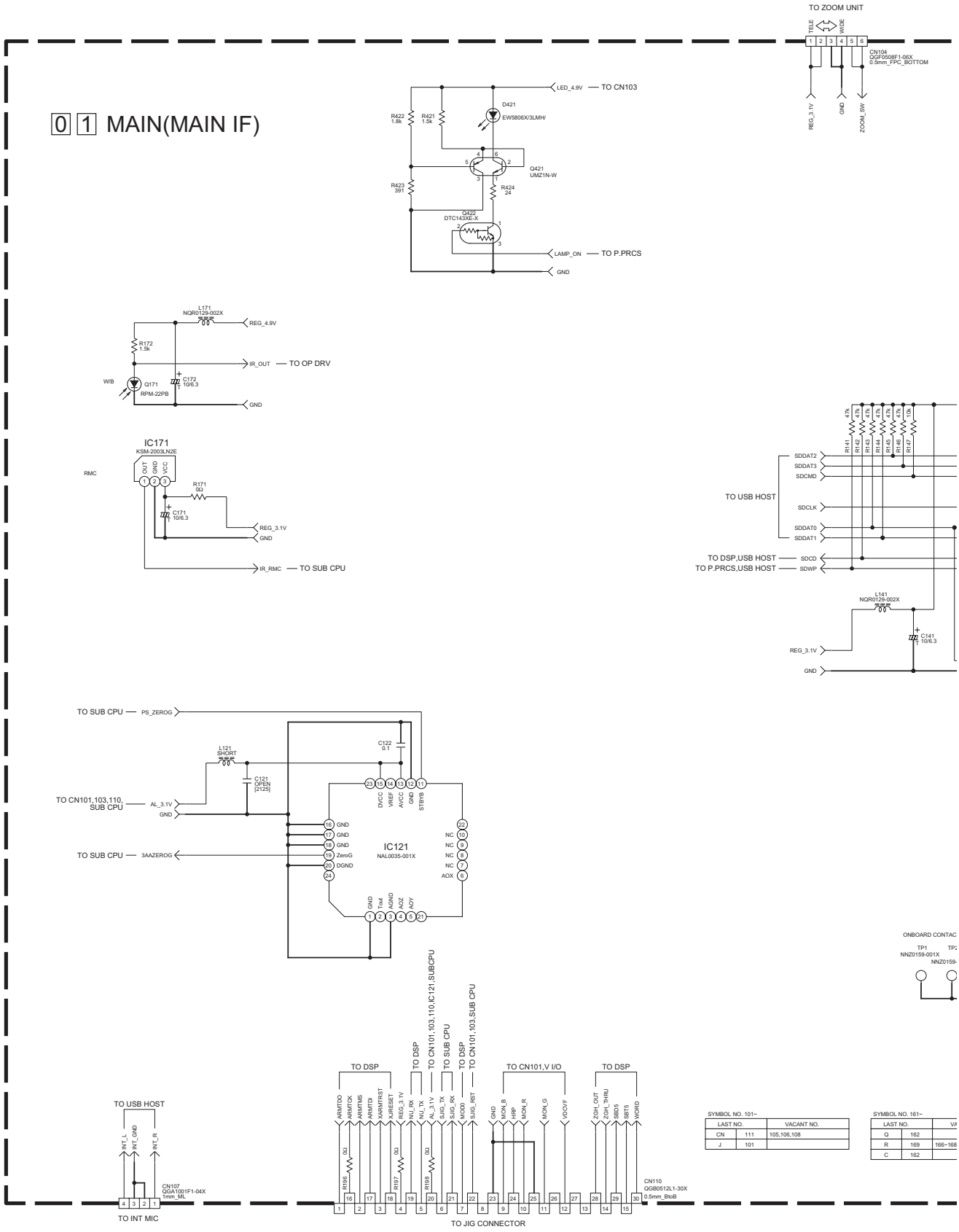
## ■ BOARD INTERCONNECTION




NOTES: The number of patch cords (∗) are indicated by interconnected.


ZOOM UNIT
(Page2-29)
MIC
YTU94074-6
YTU94077-6
CN104
0 1 MAIN
USB HOST(Page2-27)
MAIN IF
(Page2-5)
DSP MEM(Page2-19)
DSP
(Page2-15)
SUB CPU
(Page2-7)
0 5 REAR
REAR IF(Page2-36)
REG(Page2-37)
DC JACK
BATT_TERM
CN6002
SPEAKER
TRIG SW
HDD
JIG CONNECTOR
CN102
CN110
CN111
SD CARD
WB_SENS
RMC
USB
NOT USED
yf133_y10604001a_rev0.1-h

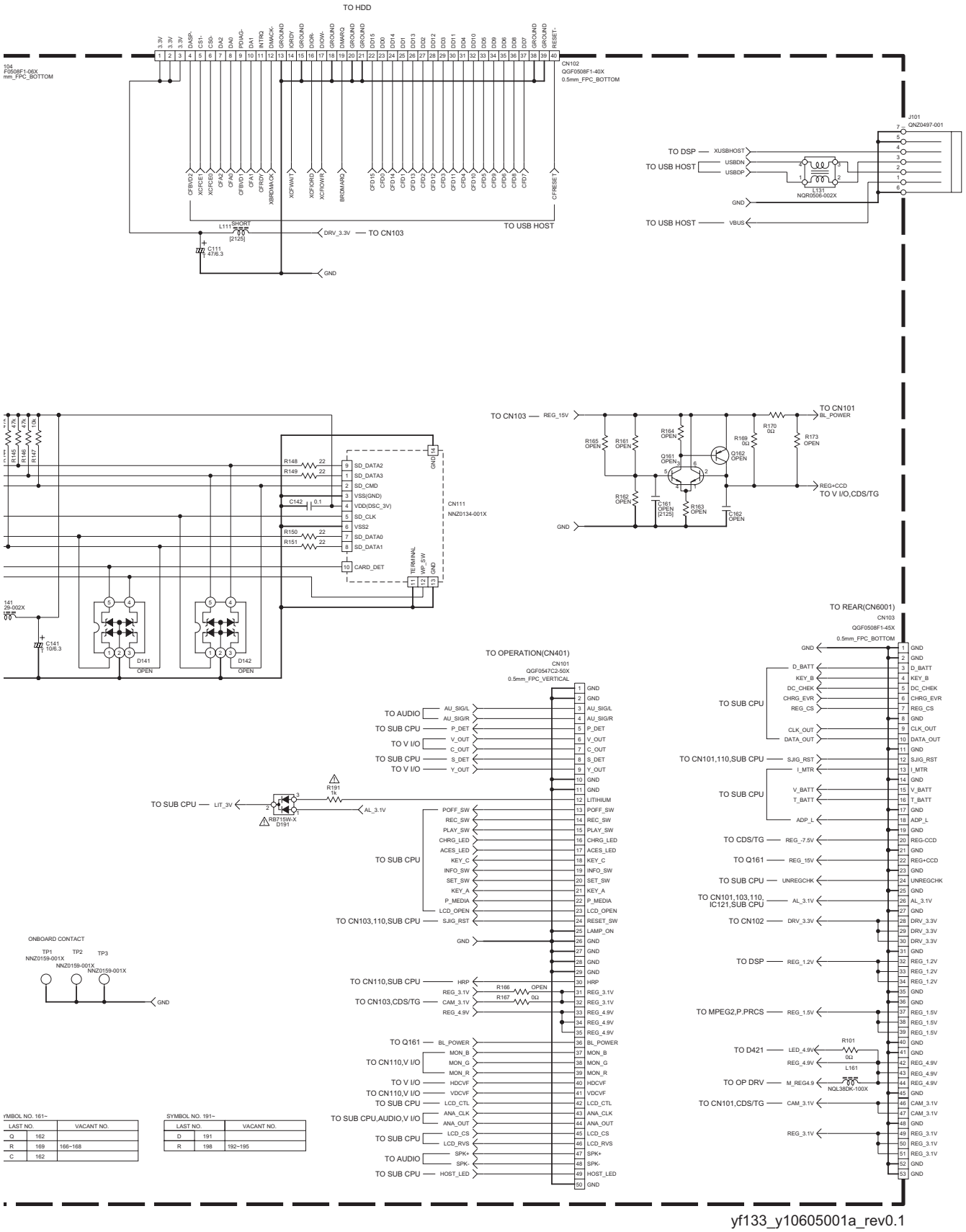
## ■ MAIN(MAIN IF) SCHEMATIC DIAGRAM




| SYMBOL NO. 101~ | | |
|---|---|---|
| LAST NO. | | VACANT NO. |
| CN | 111 | 105,106,108 |
| J | 101 | |

| SYMBOL NO. 161~ | | |
|---|---|---|
| LAST NO. | | VA |
| Q | 162 | |
| R | 169 | 166~168 |
| C | 162 | |

NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.




| LAST NO. | | VACANT NO. |
|---|---|---|
| Q | 162 | |
| R | 169 | 166~168 |
| C | 162 | |

| LAST NO. | | VACANT NO. |
|---|---|---|
| D | 191 | |
| R | 198 | 192~195 |

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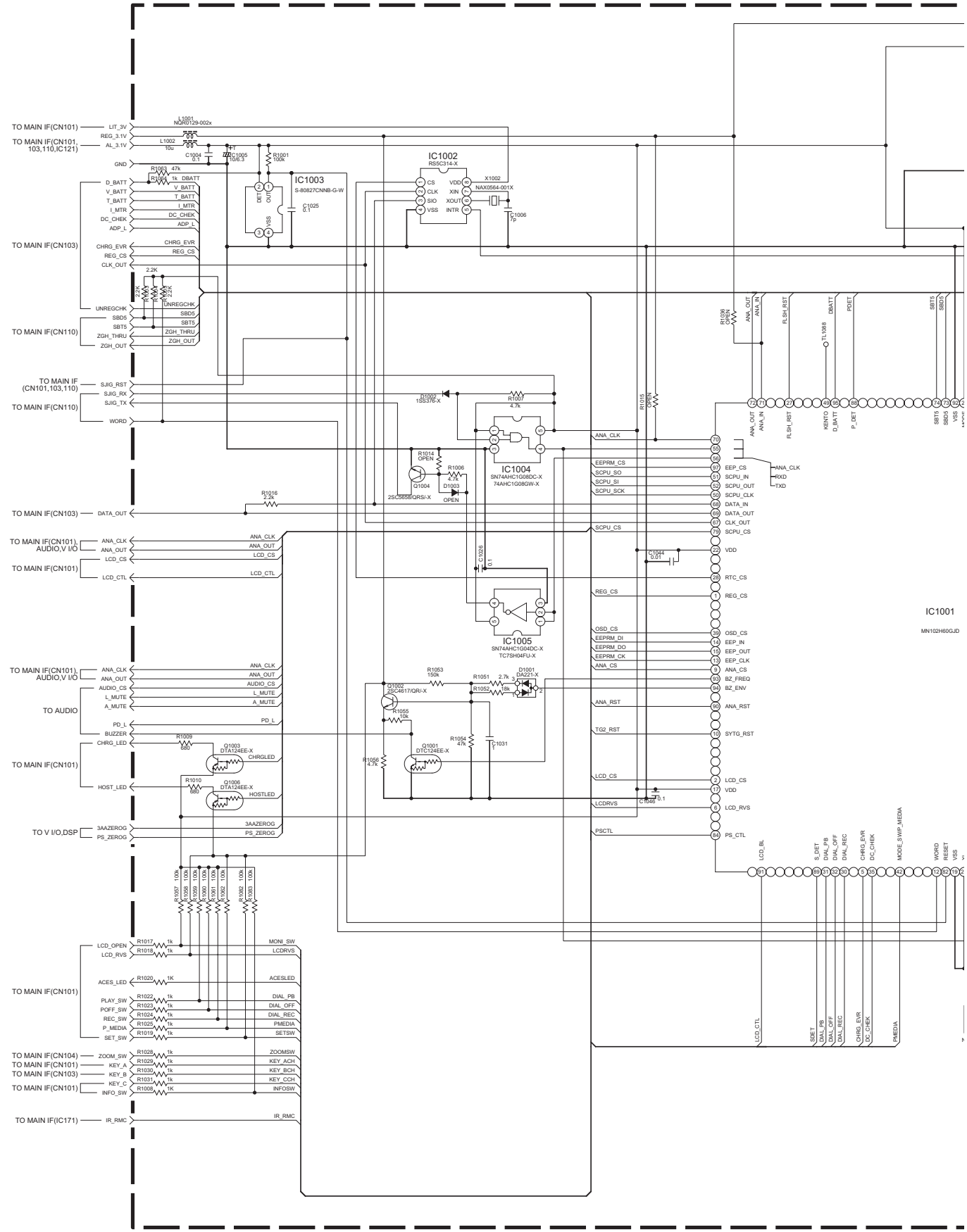
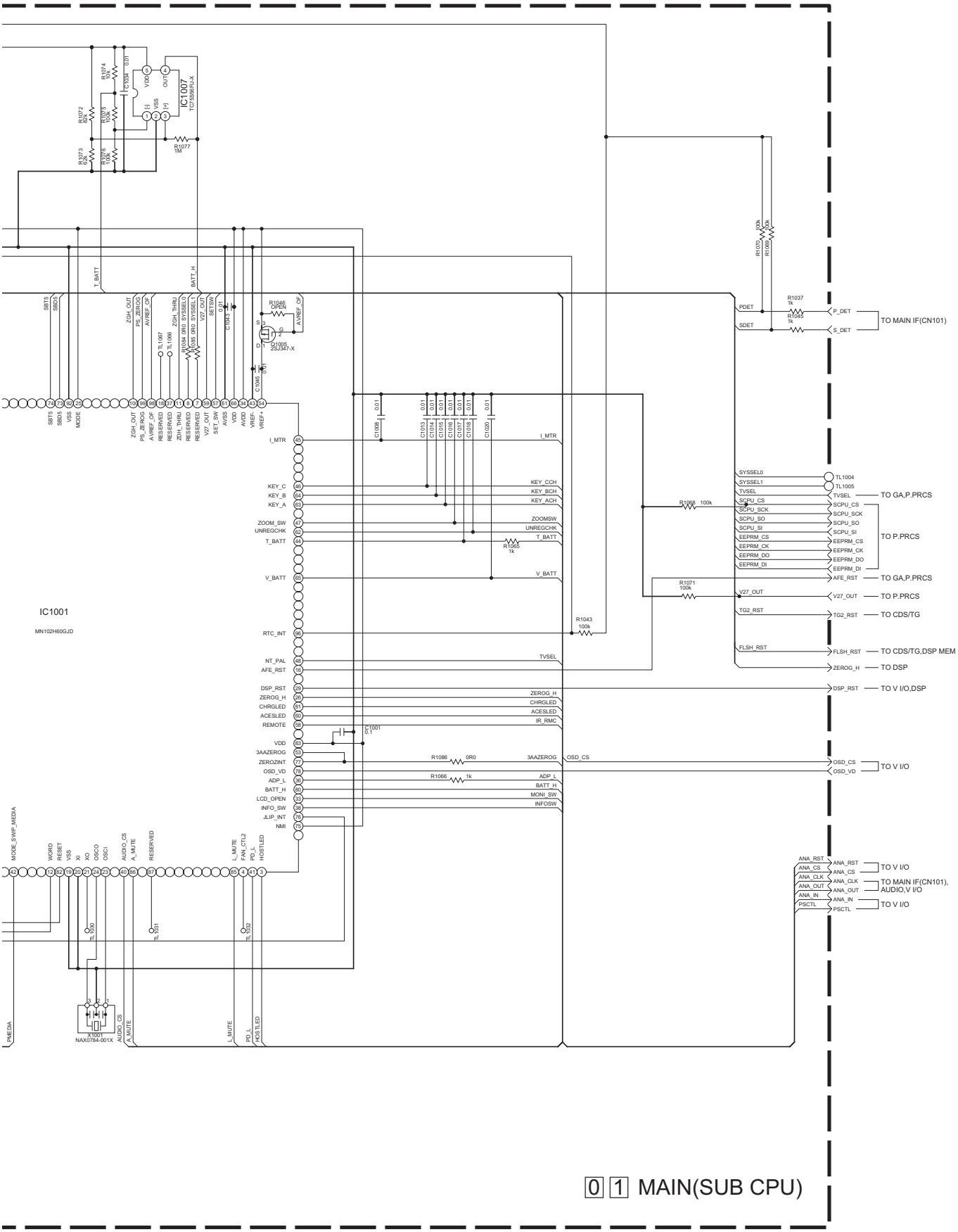
ONS".

## ■ MAIN(SUB CPU) SCHEMATIC DIAGRAM




NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.




ONS".

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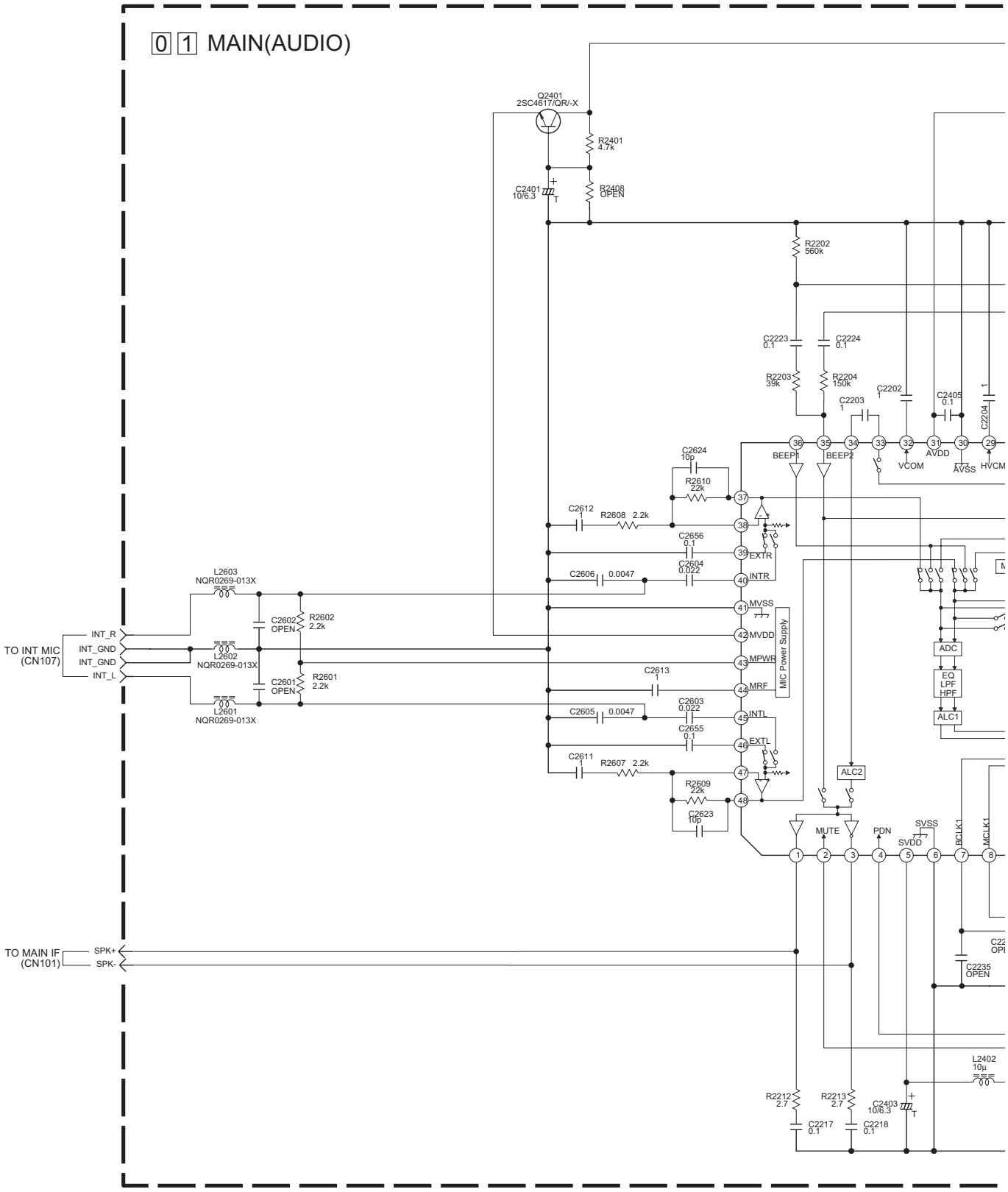
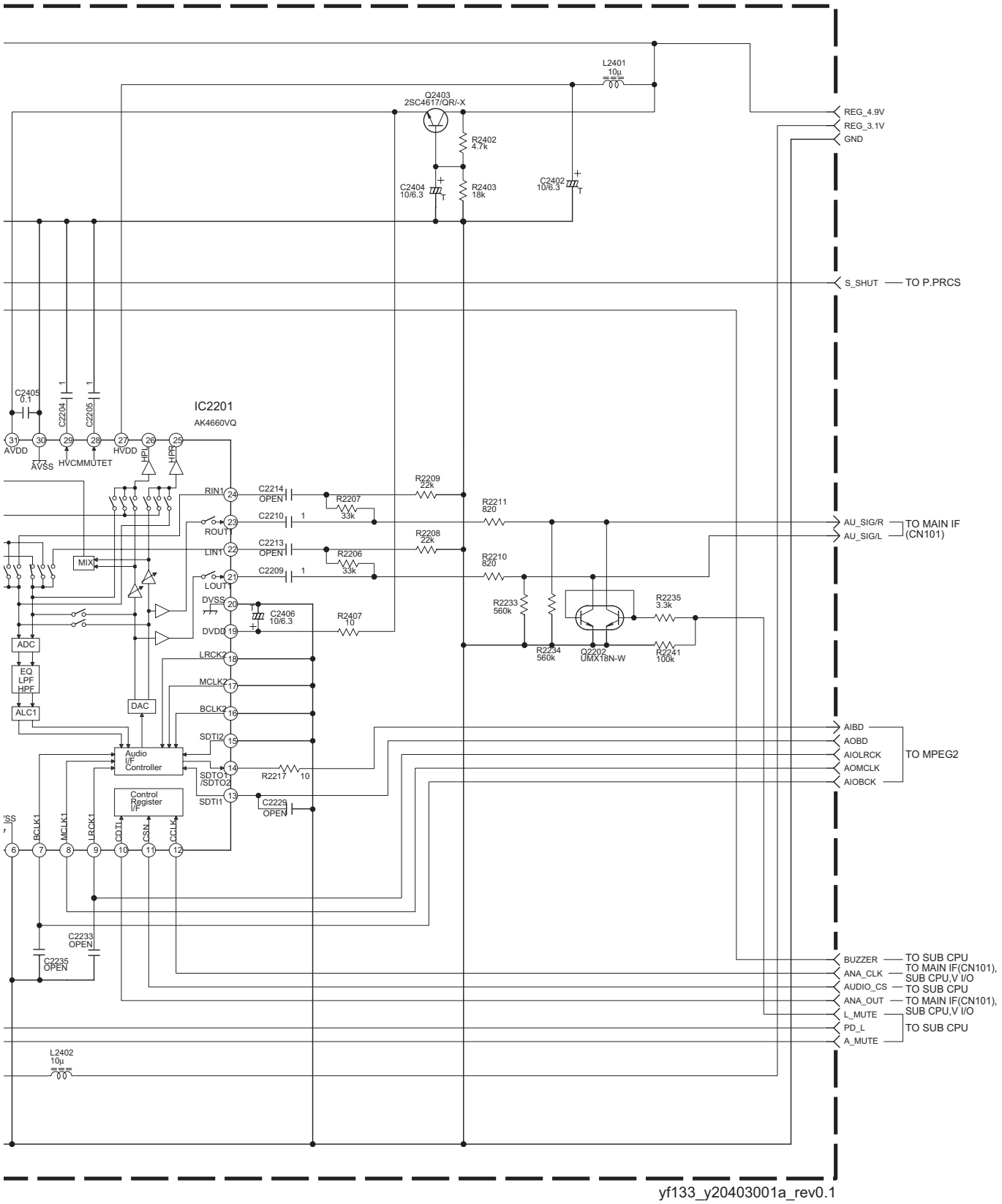
## ■ MAIN(AUDIO) SCHEMATIC DIAGRAM




NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.

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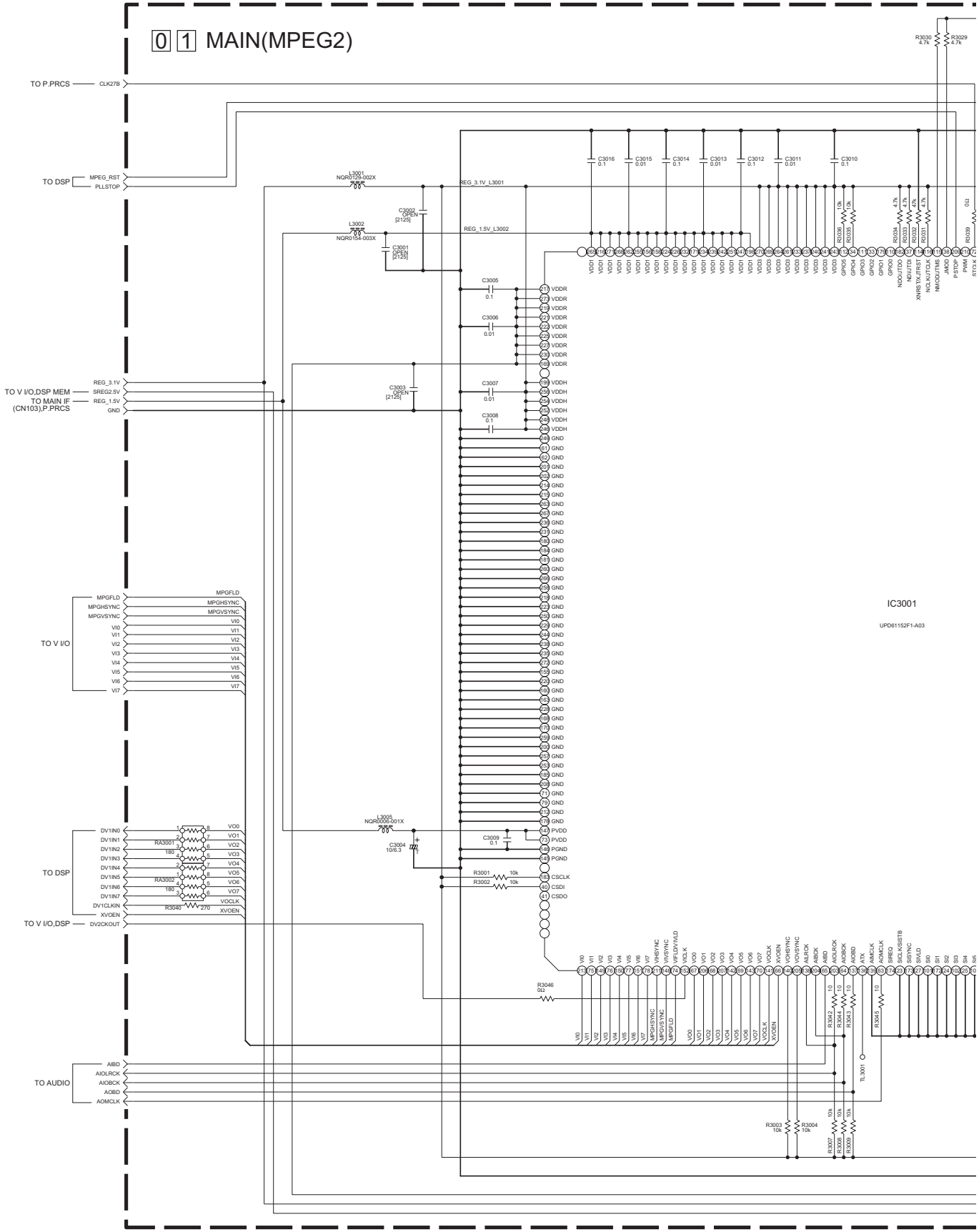
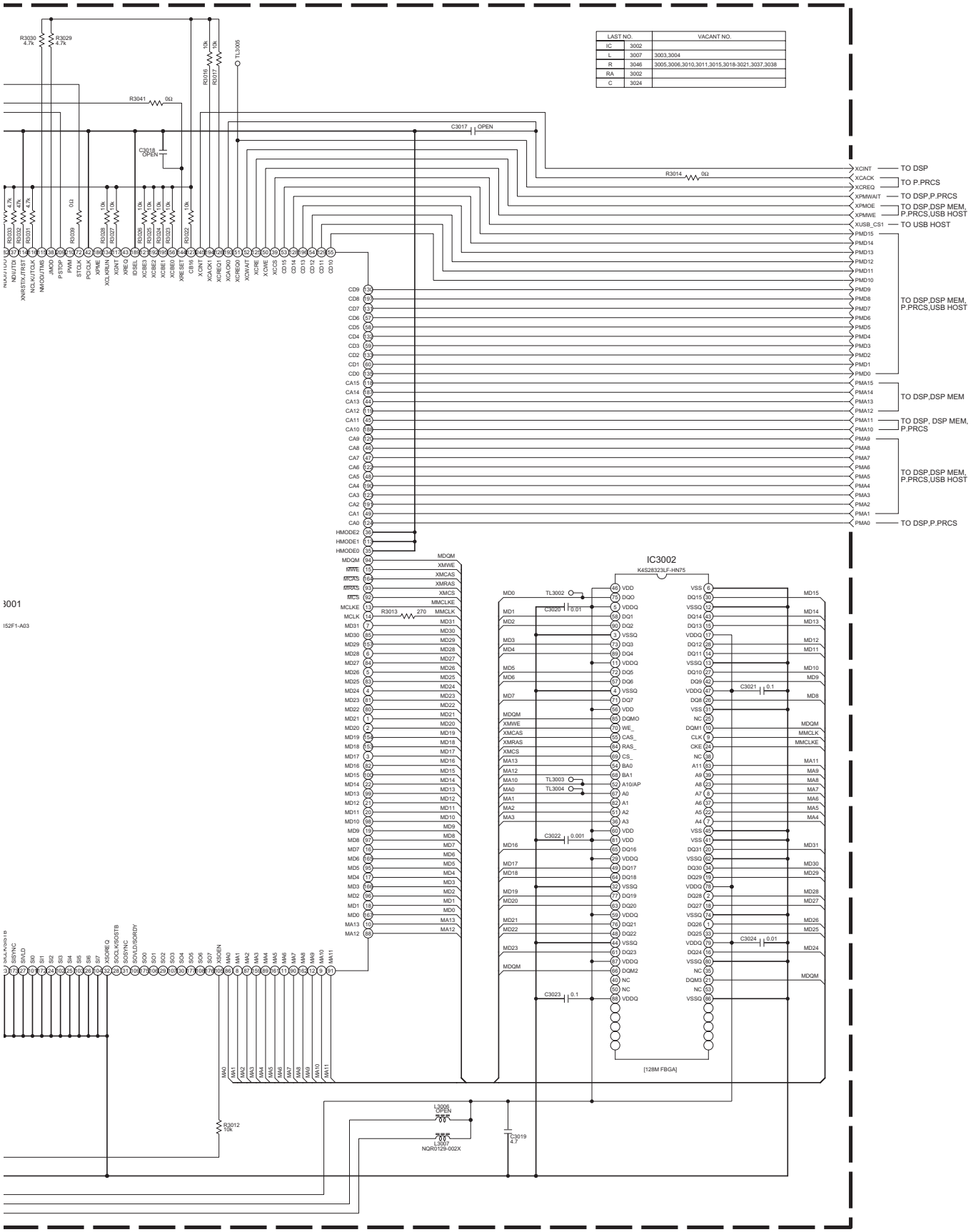
ONS".

## ■ MAIN(MPEG2) SCHEMATIC DIAGRAM

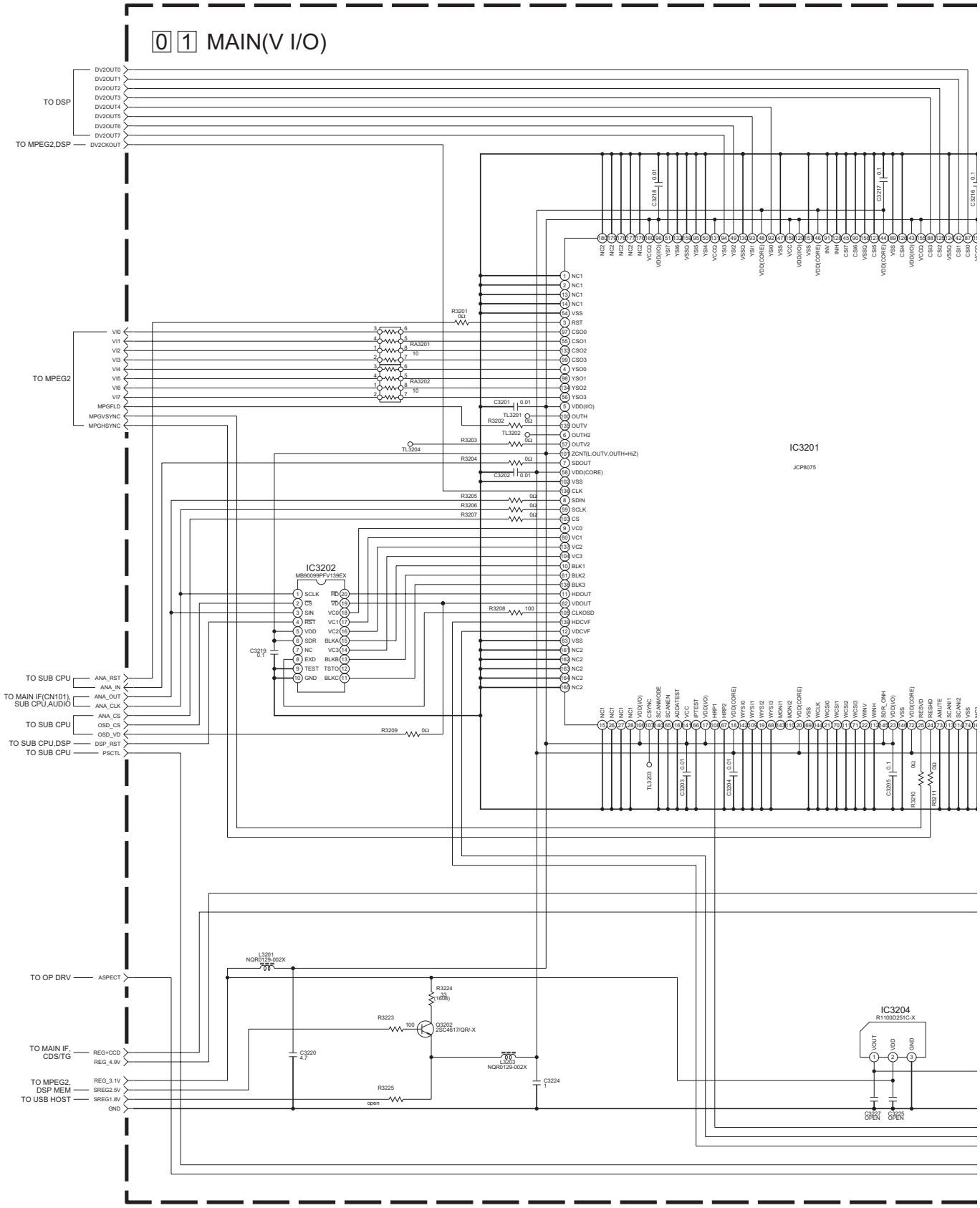



NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.

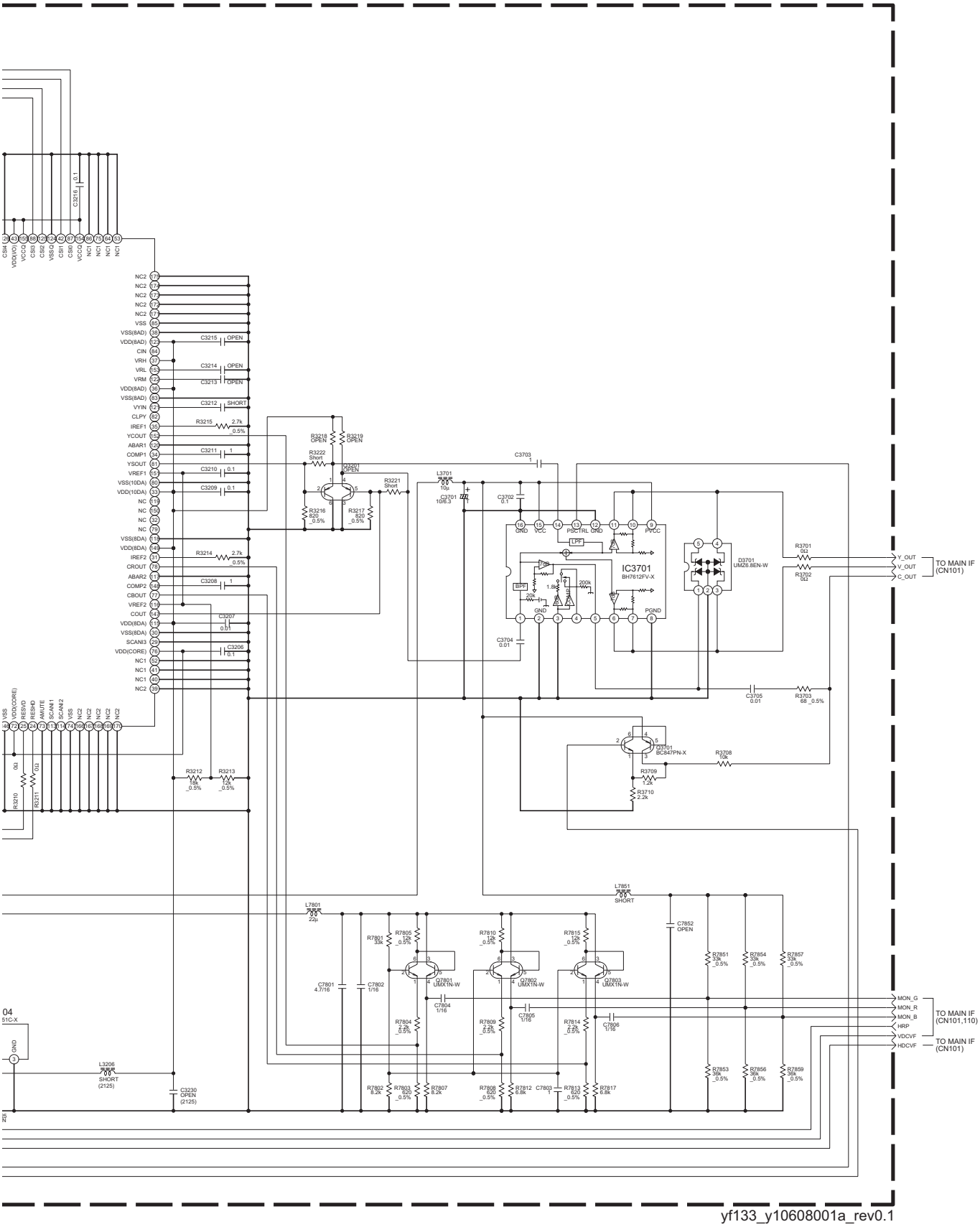

LAST NO.
IC 3002
L 3007
R 3046
RA 3002
C 3024
VACANT NO.
3003,3004
3005,3006,3010,3011,3015,3018-3021,3037,3038
IC3002
K4S28323LF-HN75
[128M FBGA]
TO DSP
TO P.PRCS
TO DSP,P.PRCS
TO DSP,DSP MEM, P.PRCS,USB HOST
TO USB HOST
TO DSP,DSP MEM, P.PRCS,USB HOST
TO DSP,DSP MEM
TO DSP, DSP MEM, P.PRCS
TO DSP,DSP MEM, P.PRCS,USB HOST
TO DSP,P.PRCS
R3030 4.7k
R3029 4.7k
R3041 0Ω
C3017 OPEN
C3018 OPEN
R3014 0Ω
R3012 10k
L3006 OPEN
C3007 NQR0129-002X
C3019 4.7
yf133_y10607001a_rev0.1

ONS".

## ■ MAIN(V I/O) SCHEMATIC DIAGRAM




NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.

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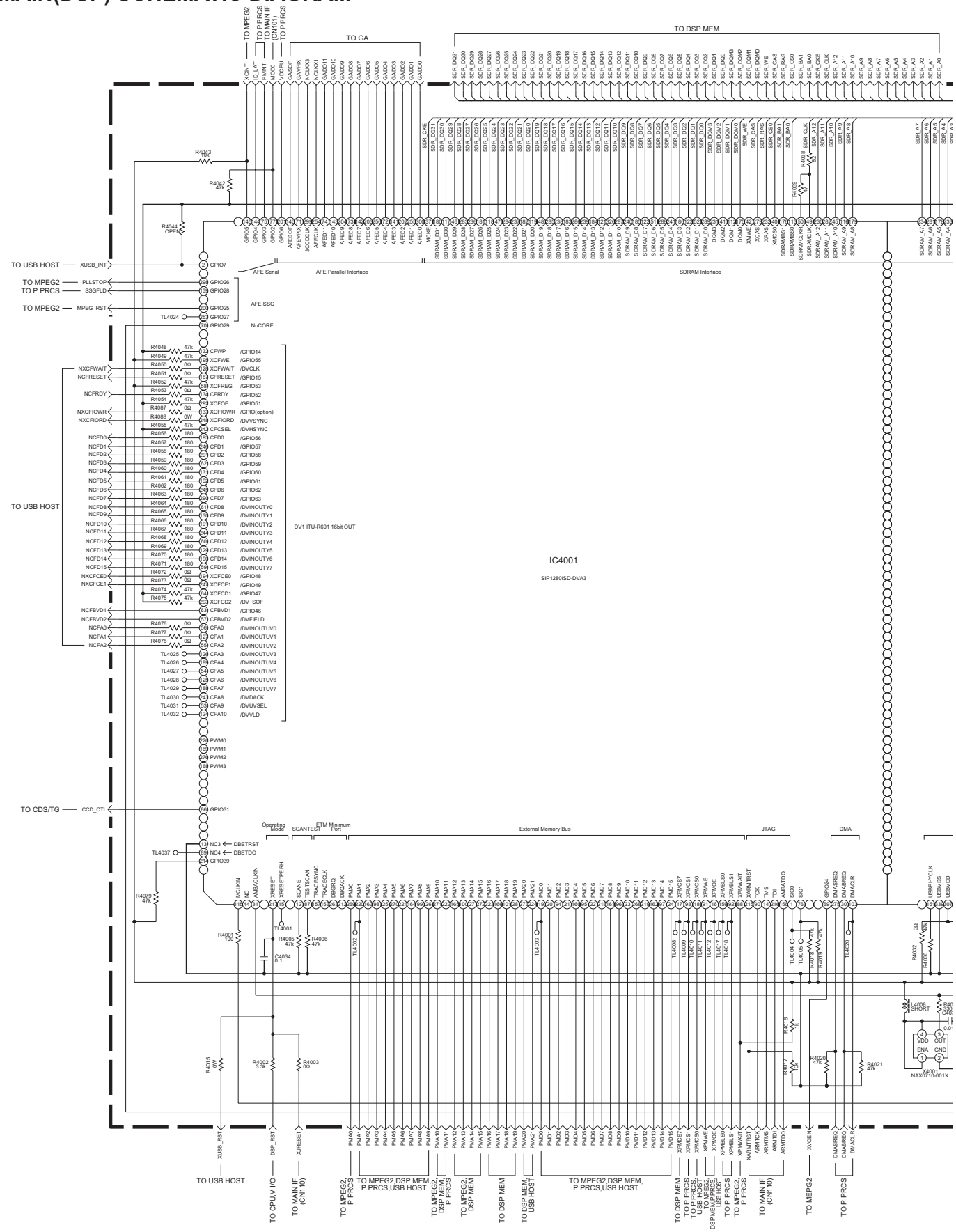
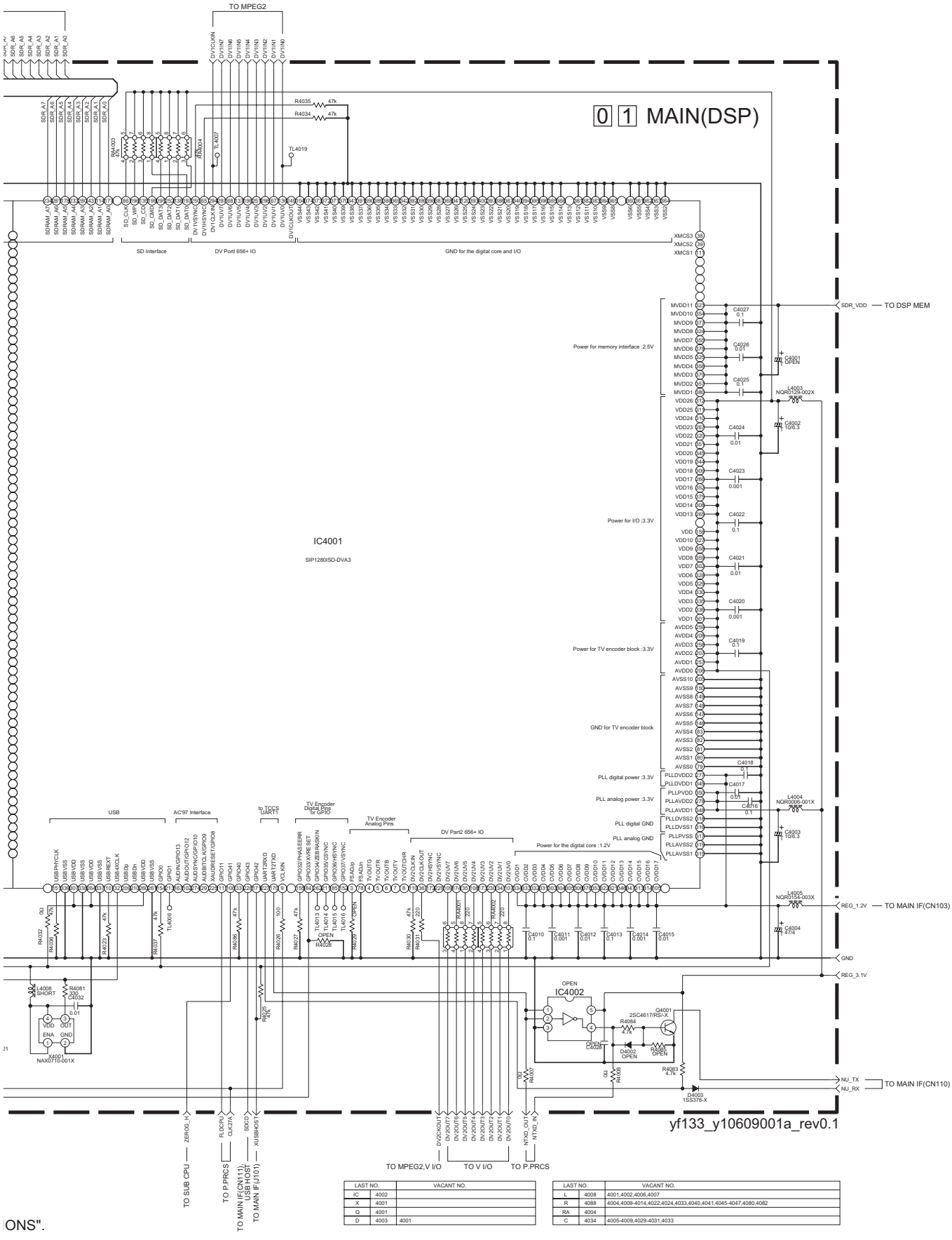
ONS".

# ■ MAIN(DSP) SCHEMATIC DIAGRAM




NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.

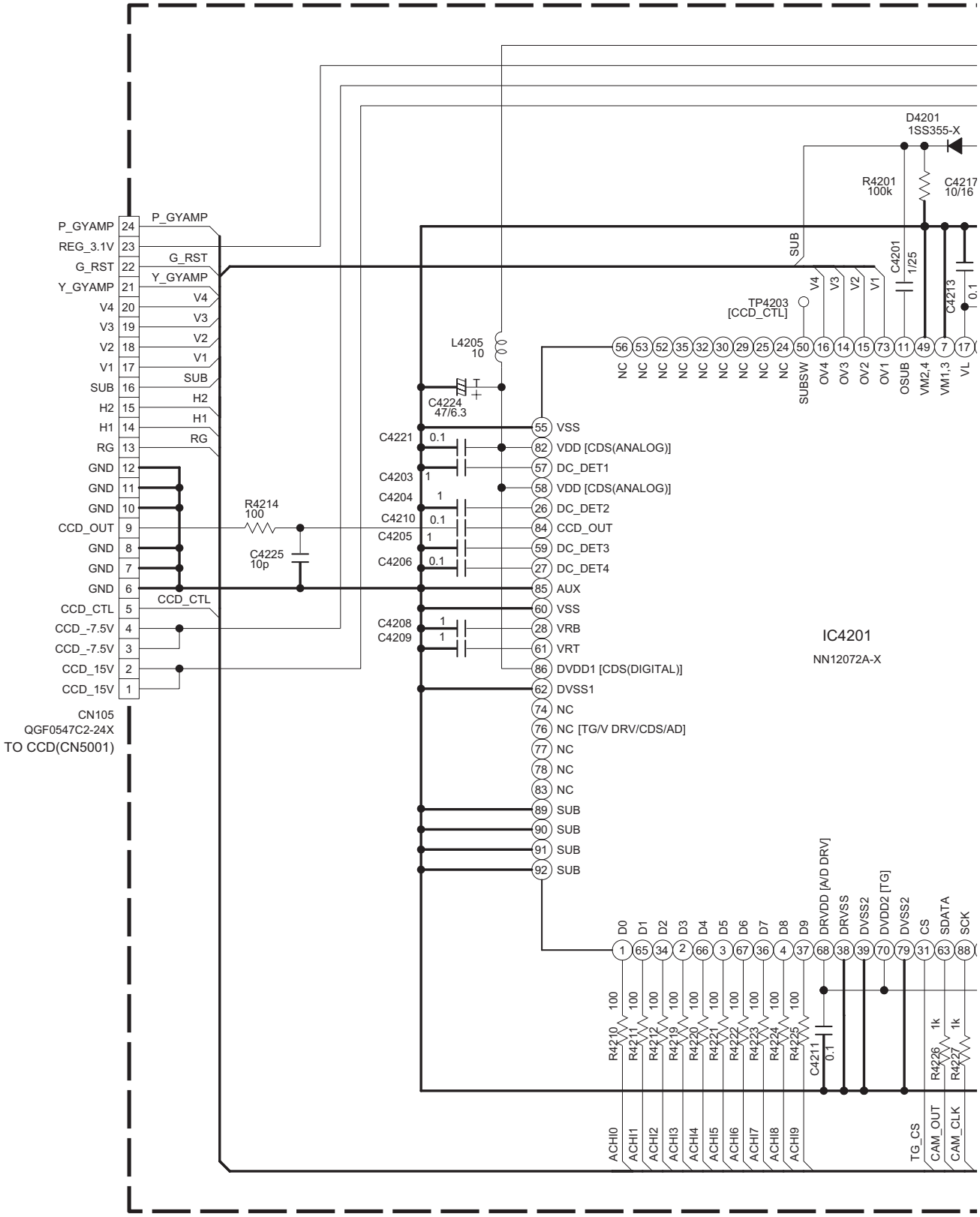



ONS".

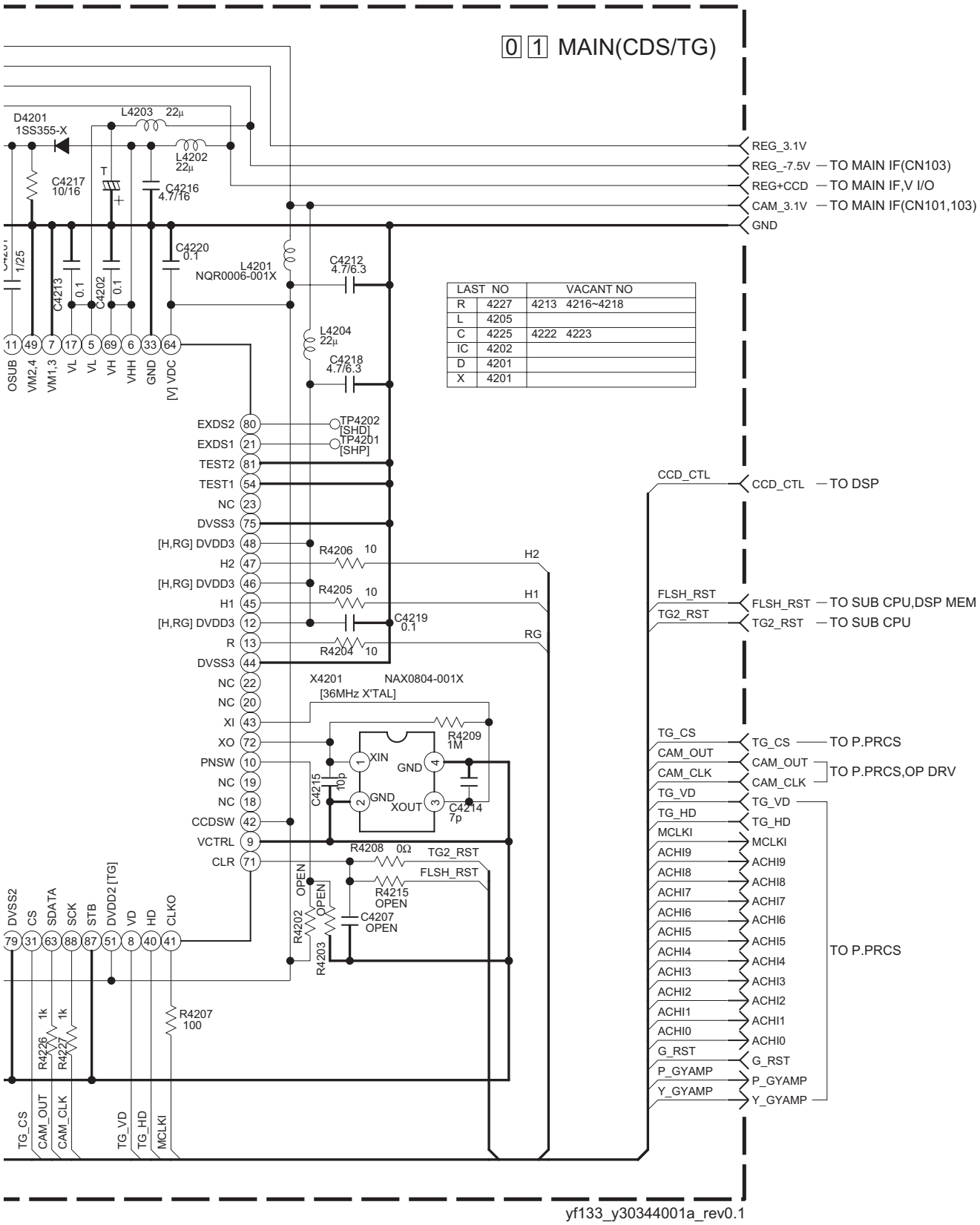
| LAST NO. | | VACANT NO. |
|---|---|---|
| IC | 4002 | |
| X | 4001 | |
| Q | 4001 | |
| D | 4003 | 4001 |

| LAST NO. | | VACANT NO. |
|---|---|---|
| L | 4008 | 4001,4002,4006,4007 |
| R | 4088 | 4004,4009-4014,4022,4024,4033,4040,4041,4045-4047,4080,4082 |
| RA | 4004 | |
| C | 4034 | 4005-4009,4029-4031,4033 |

## ■ MAIN(CDS/TG) SCHEMATIC DIAGRAM




NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.

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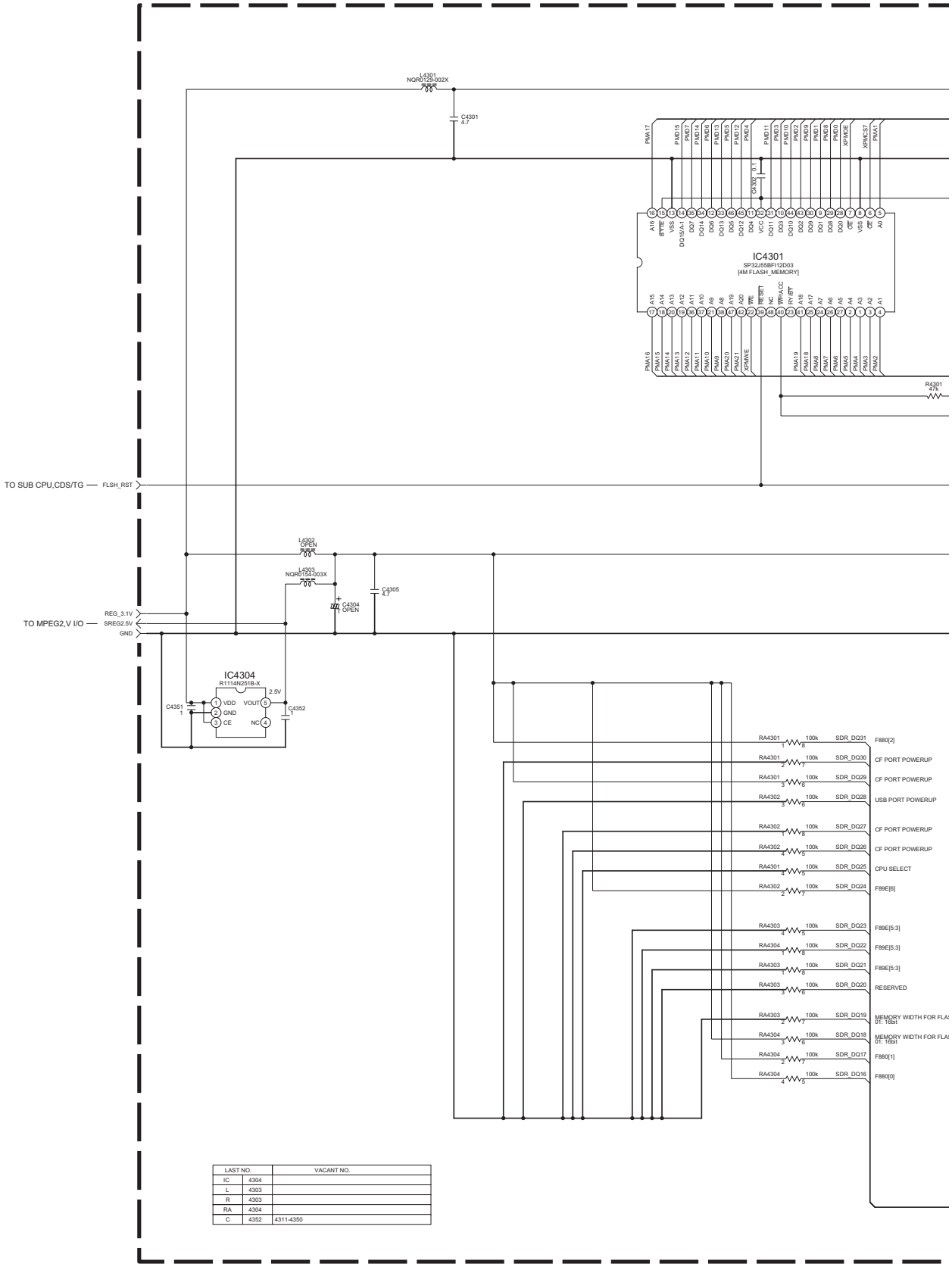
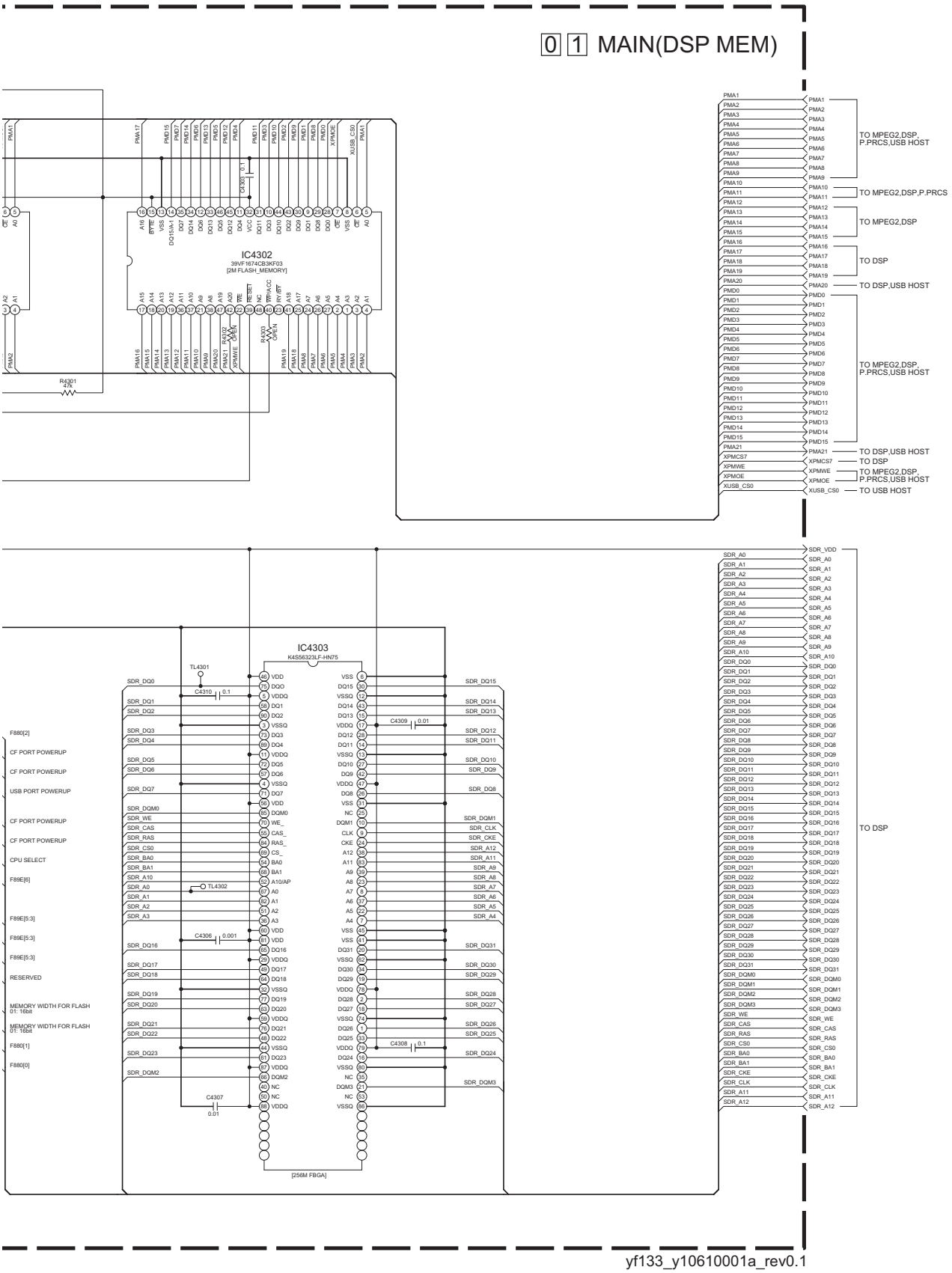
ONS".

## ■ MAIN(DSP MEM) SCHEMATIC DIAGRAM




| LAST NO. | | VACANT NO. |
|---|---|---|
| IC | 4304 | |
| L | 4303 | |
| R | 4303 | |
| RA | 4304 | |
| C | 4352 | 4311-4350 |

NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.

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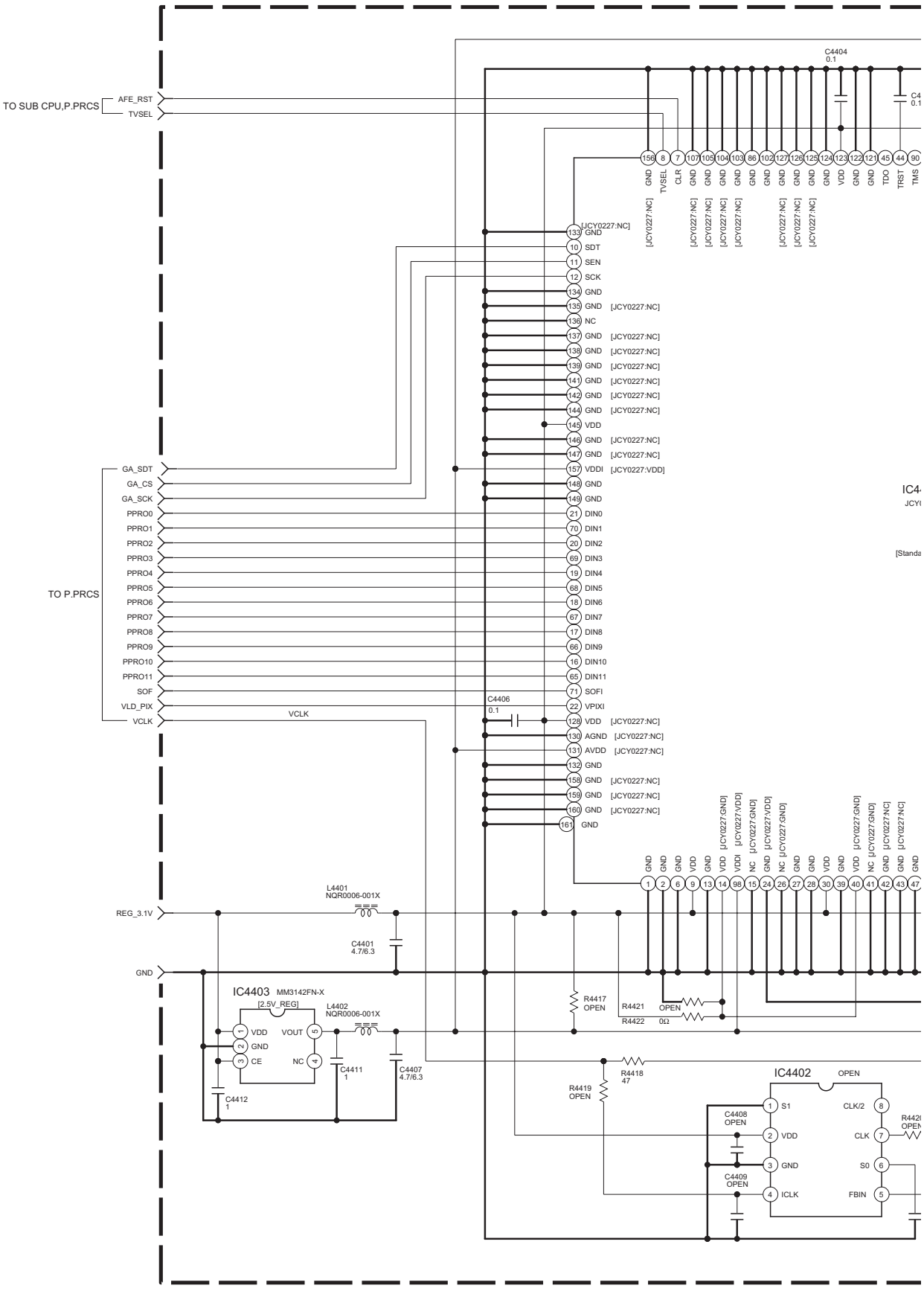
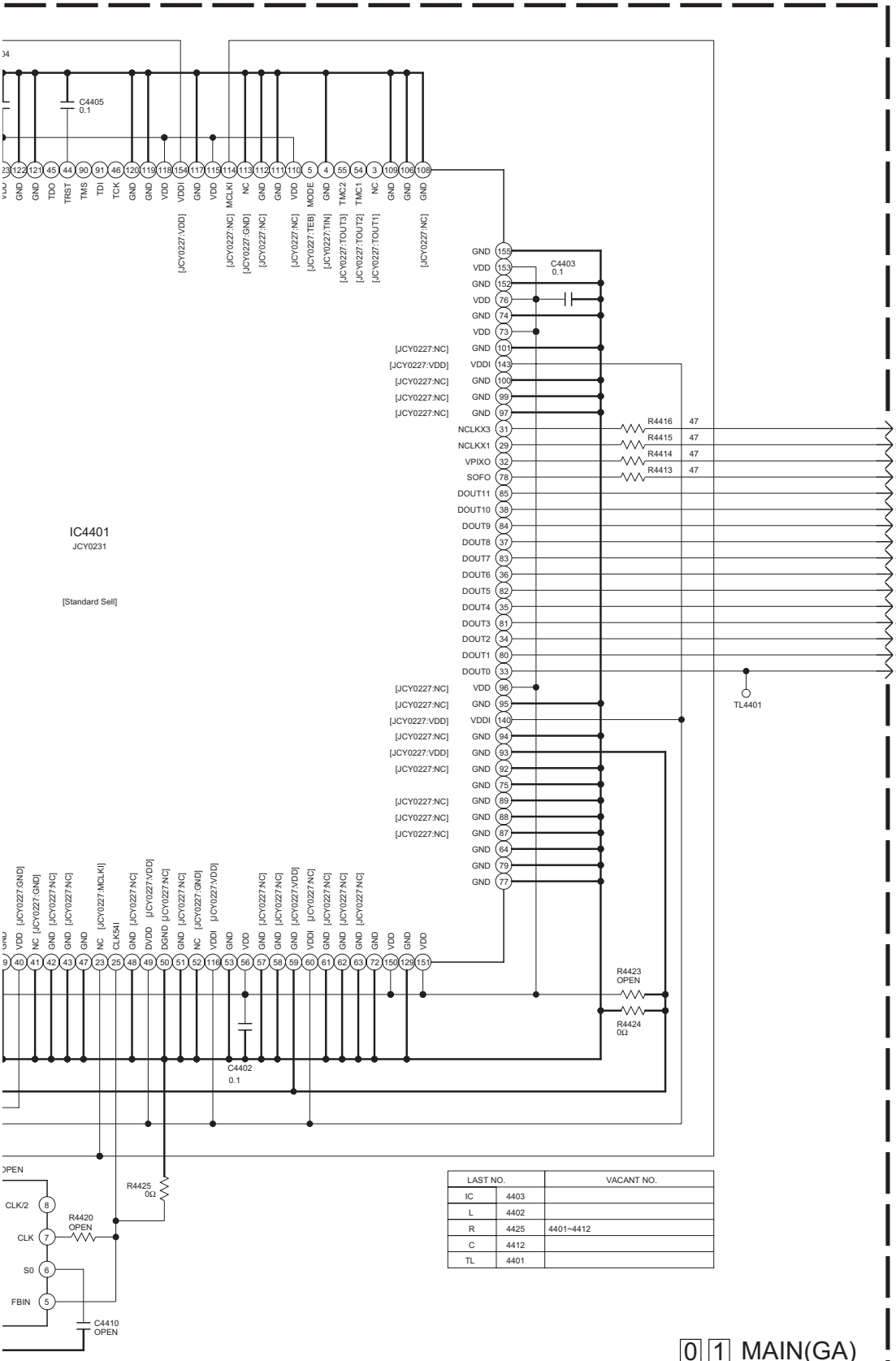
ONS".

## ■ MAIN(GA) SCHEMATIC DIAGRAM




NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.



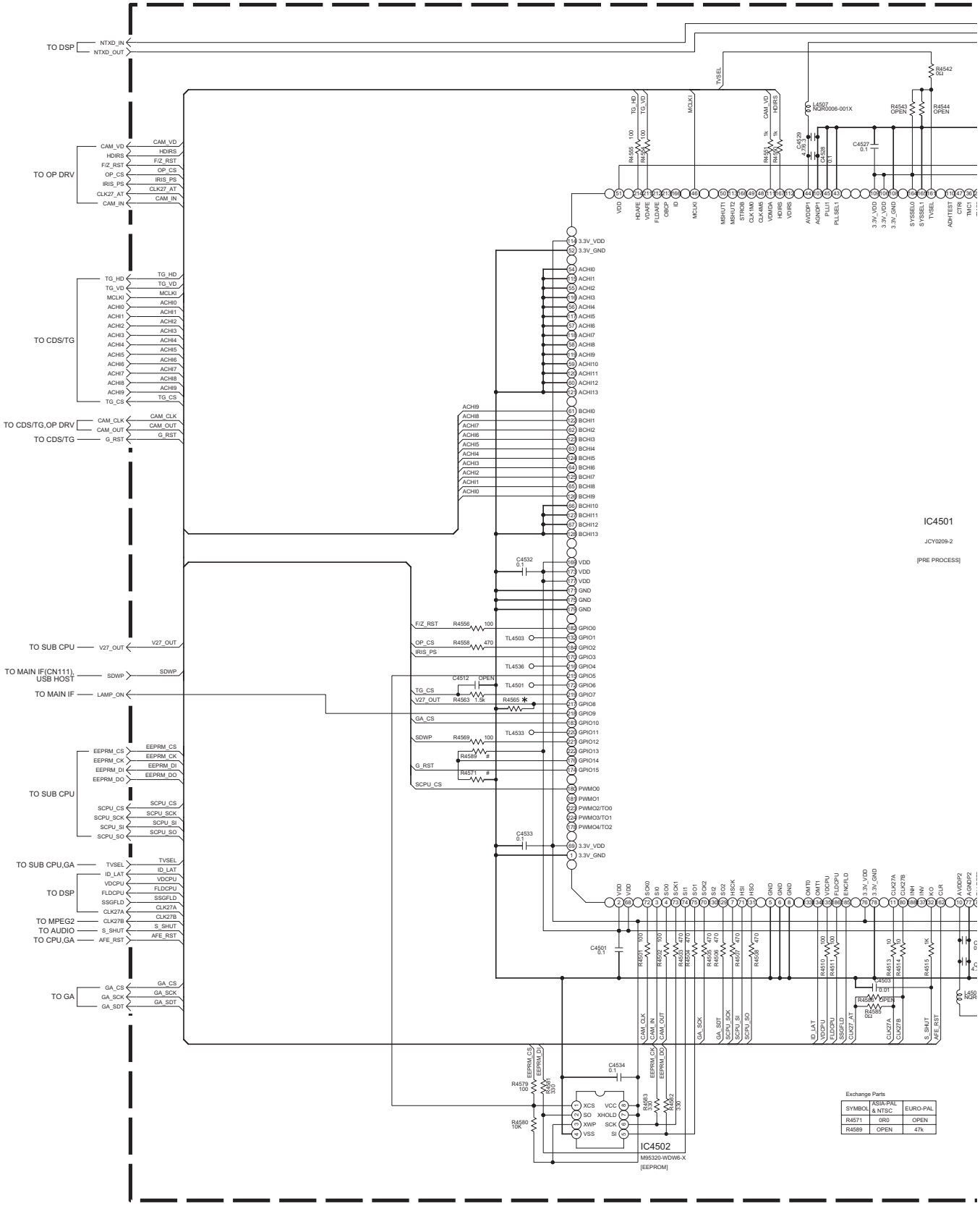

| LAST NO. | | VACANT NO. |
|---|---|---|
| IC | 4403 | |
| L | 4402 | |
| R | 4425 | 4401~4412 |
| C | 4412 | |
| TL | 4401 | |

0 1 MAIN(GA)

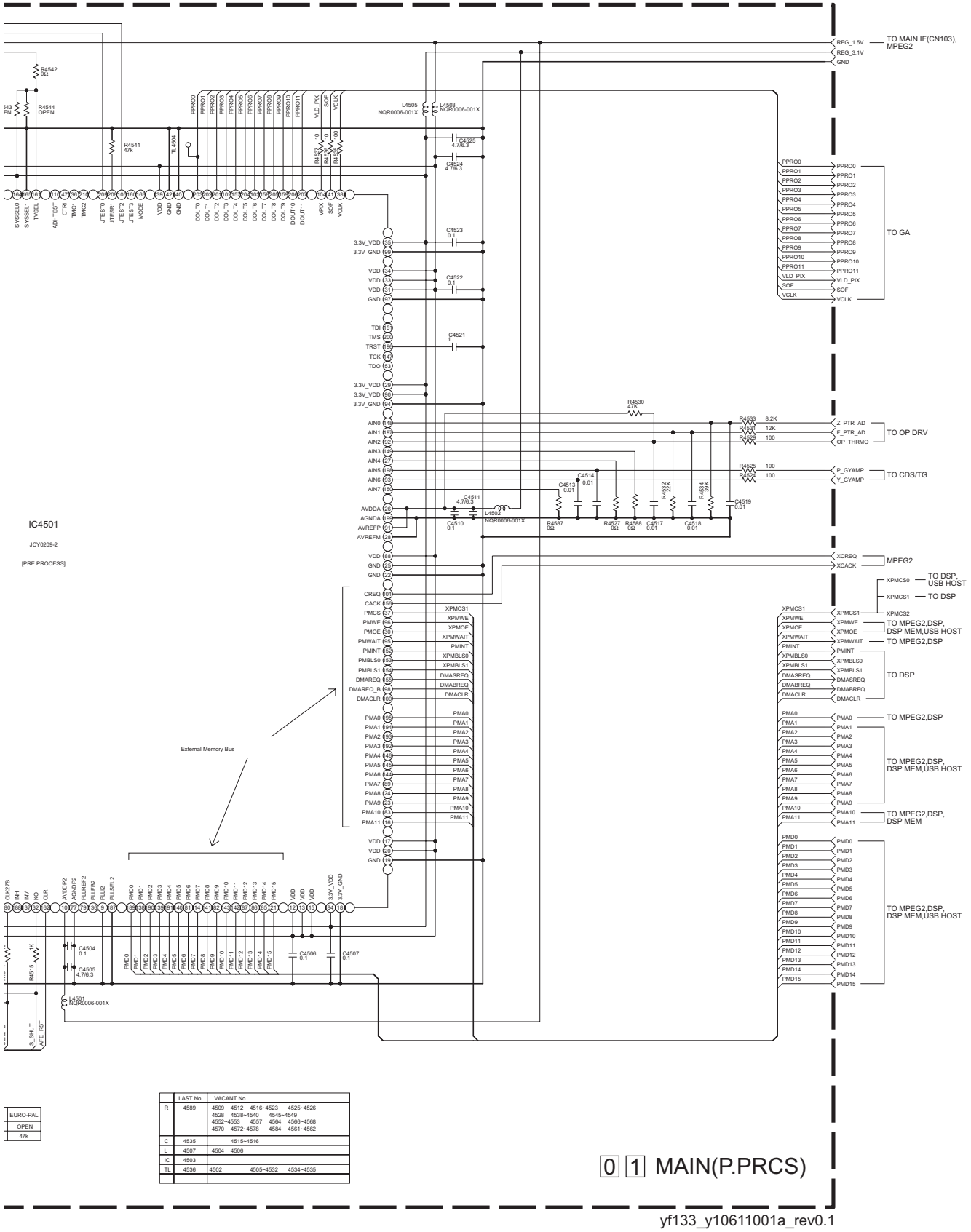
yf133_y20407001a_rev0.1

ONS".

## ■ MAIN(P.PRCS) SCHEMATIC DIAGRAM




NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.

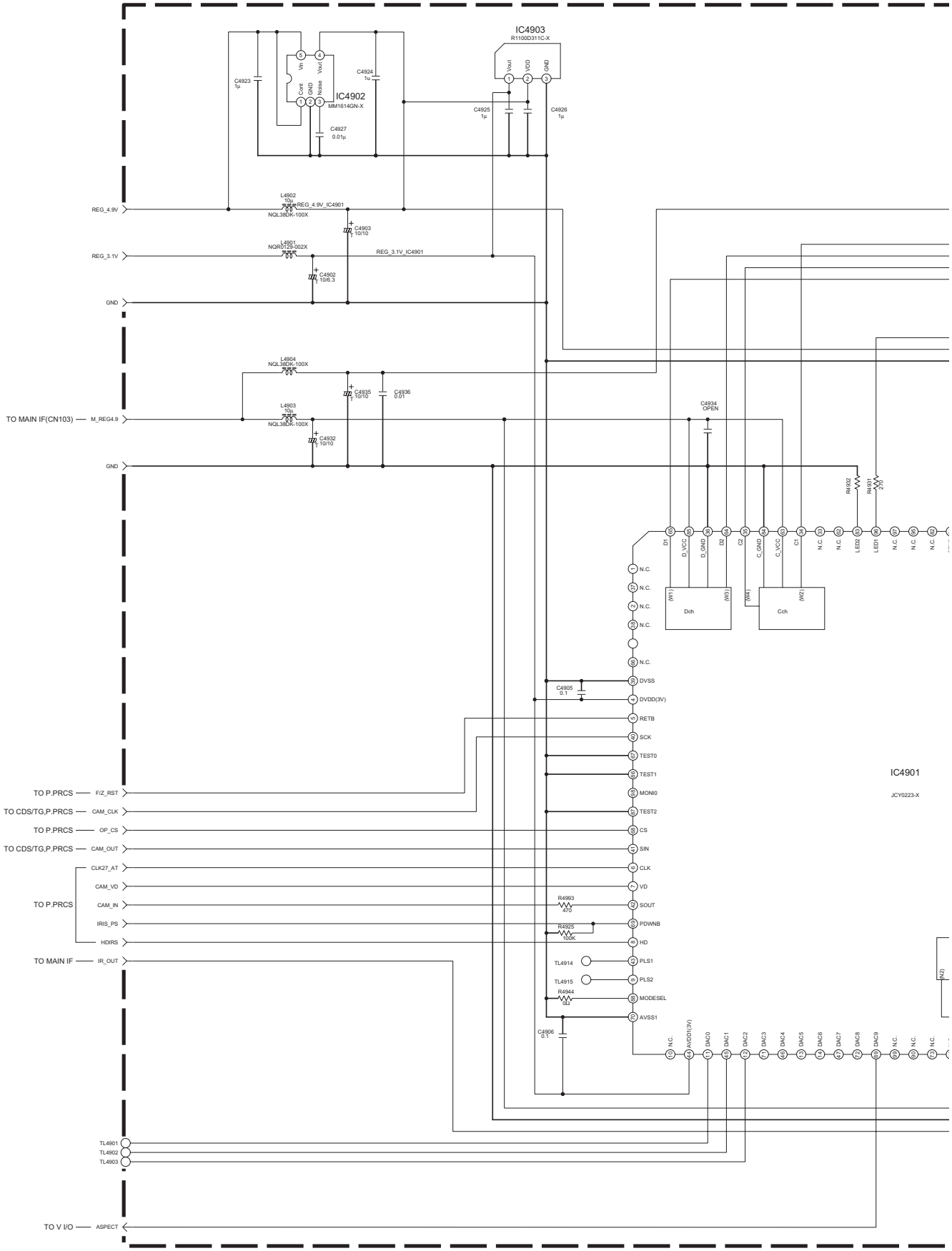



| | LAST No | VACANT No |
|---|---|---|
| R | 4589 | 4509 4512 4516~4523 4525~4526 4528 4538~4540 4545~4549 4552~4553 4557 4564 4566~4568 4570 4572~4578 4584 4561~4562 |
| C | 4535 | 4515~4516 |
| L | 4507 | 4504 4506 |
| IC | 4503 | |
| TL | 4536 | 4502 4505~4532 4534~4535 |
| | | |

| EURO-PAL |
|---|
| OPEN |
| 47k |

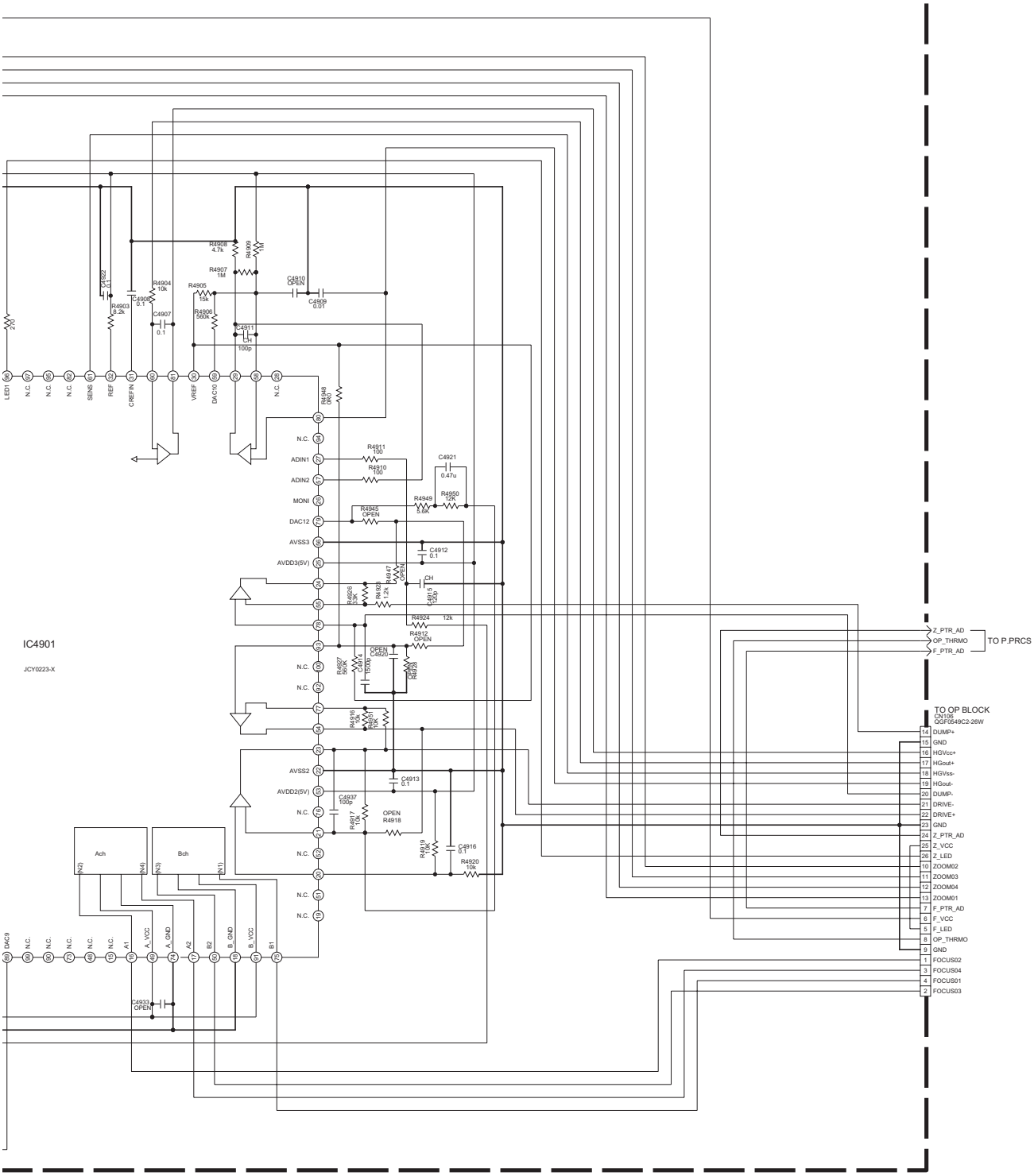
ONS".

## ■ MAIN(OP DRV) SCHEMATIC DIAGRAM




NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.

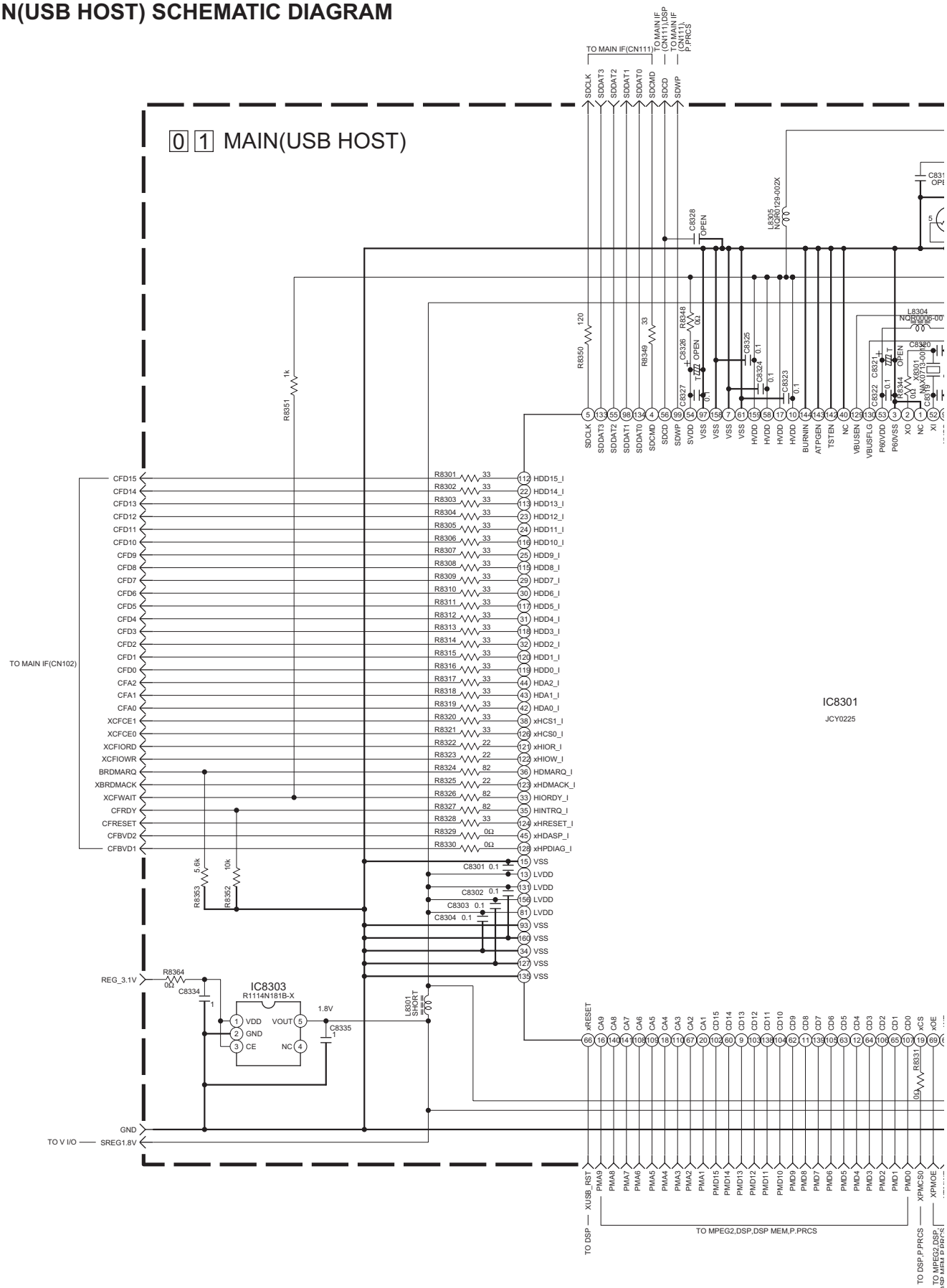
## 0 1 MAIN(OP DRV)




ONS".

yf133_y10612001a_rev0.1

## ■ MAIN(USB HOST) SCHEMATIC DIAGRAM




NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.

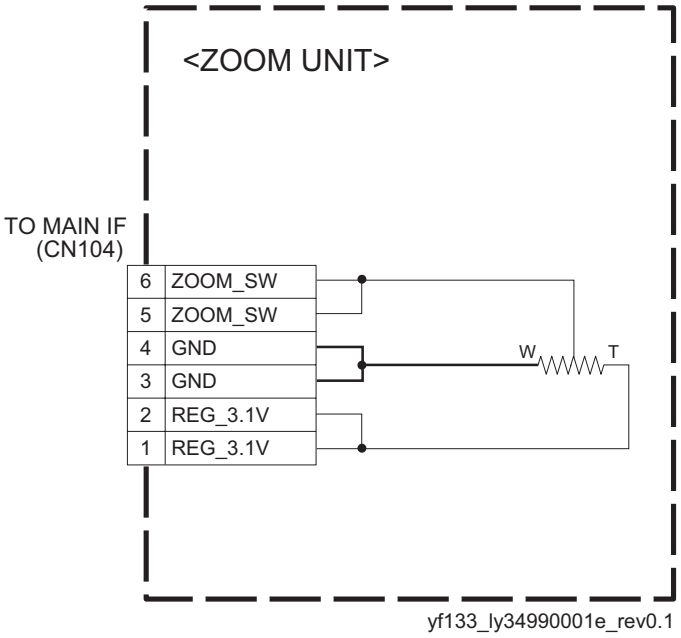
| LAST NO. | | VACANT NO. |
|---|---|---|
| IC | 8304 | |
| X | 8301 | |
| Q | 8303 | 8301,8302,8303 |
| D | 8302 | 8301 |

| LAST NO. | | VACANT NO. |
|---|---|---|
| L | 8305 | |
| R | 8367 | 8339,8345-8347,8358,8360-8363,8366 |
| C | 8339 | |
| | | |

yf133_y20406001a_rev0.1

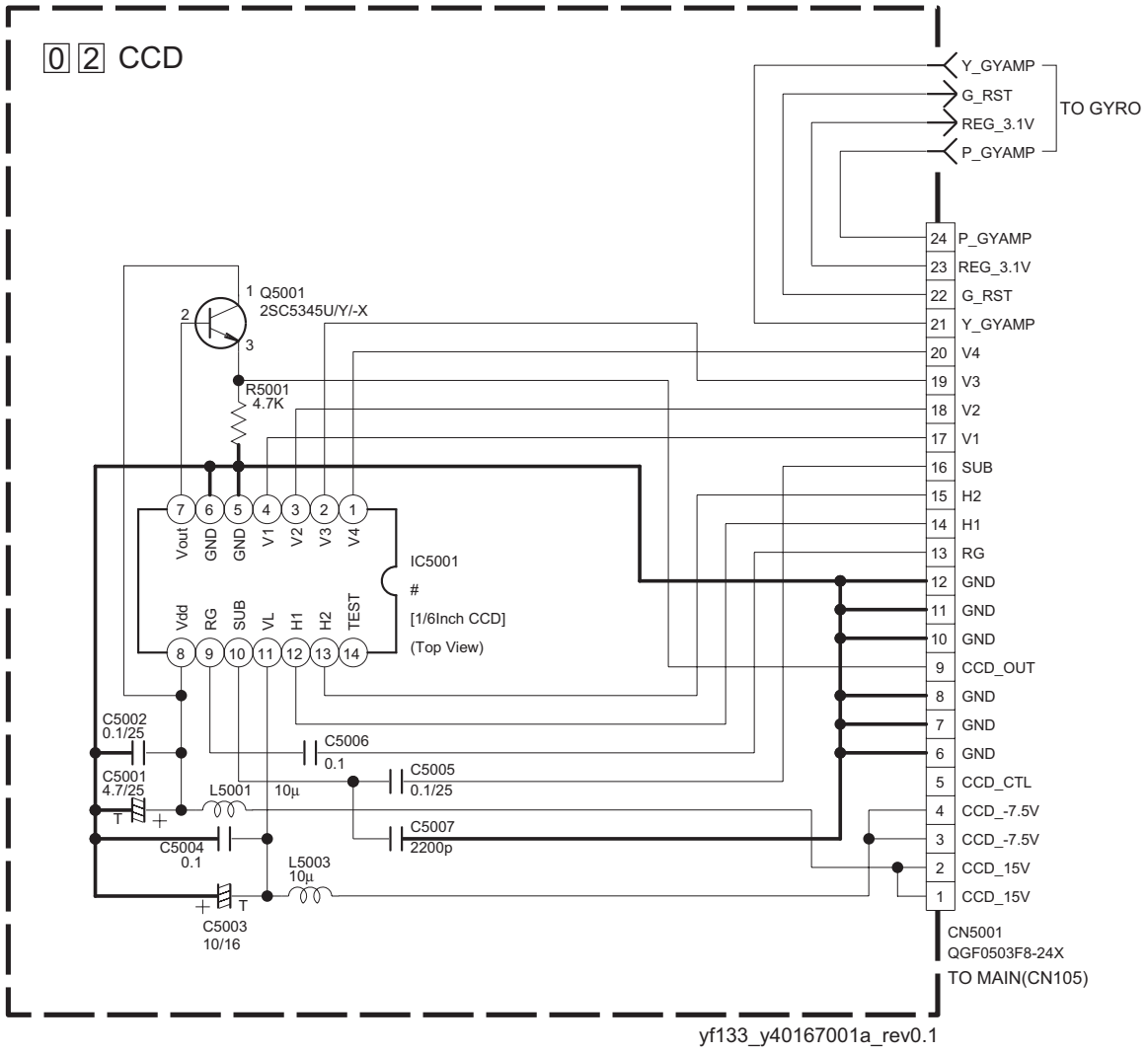
ONS".

## ■ ZOOM UNIT




NOTE: The schematic diagram is only for reference. Avoid replacing individual parts.
Replace the entire unit only.

## ■ CCD SCHEMATIC DIAGRAM

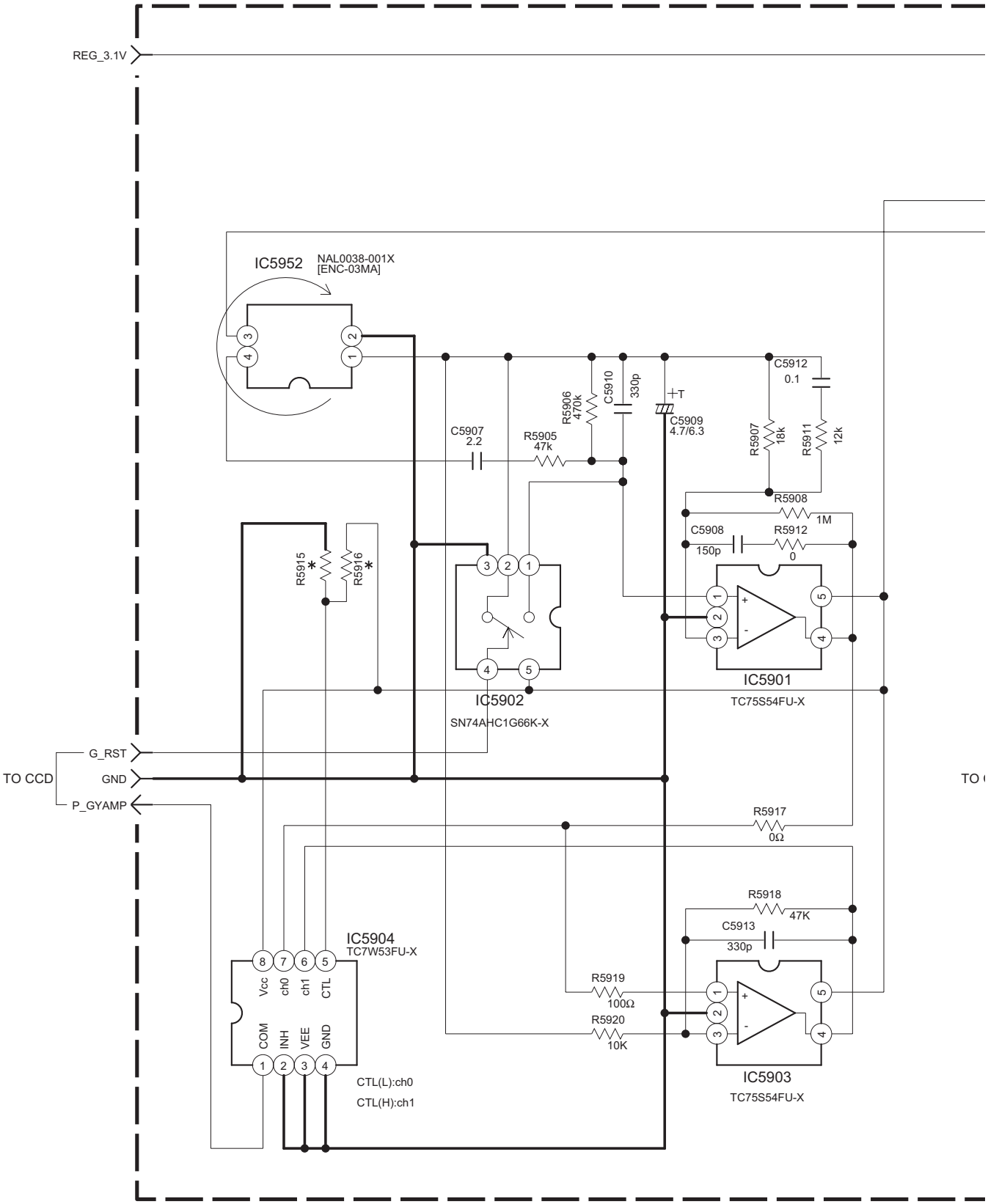



| SYMBOL | IC5001 | |
|---|---|---|
| SYSTEM | NTSC | PAL |
| CCD | ICX610UKM-V<br>ICX610UKM-K | ICX611UKM-V<br>ICX611UKM-K |

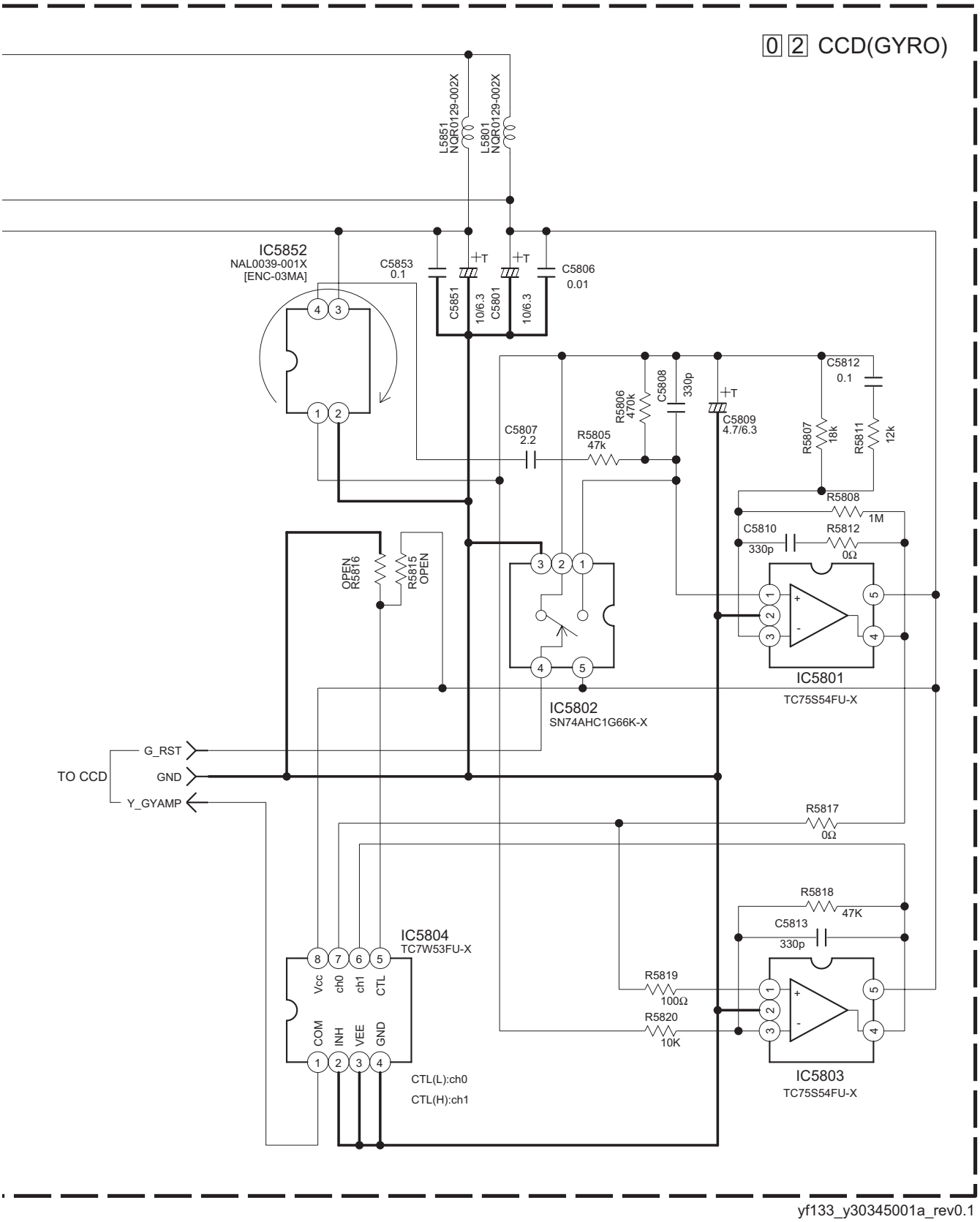
| | LAST No | VACANT No |
|---|---|---|
| R | 5001 | |
| C | 5007 | |
| L | 5003 | 5002 |
| Q | 5001 | |
| IC | 5001 | |
| CN | 5001 | |

NOTES :1. For the destination of each signal and further line connectionsthat are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.
3. IC5001 is incorporated in the CCD base assembly .
When IC5001 needs replacement, replace the CCD base assembly in whole because it cannot be replaced alone.

## ■ CCD(GYRO) SCHEMATIC DIAGRAM



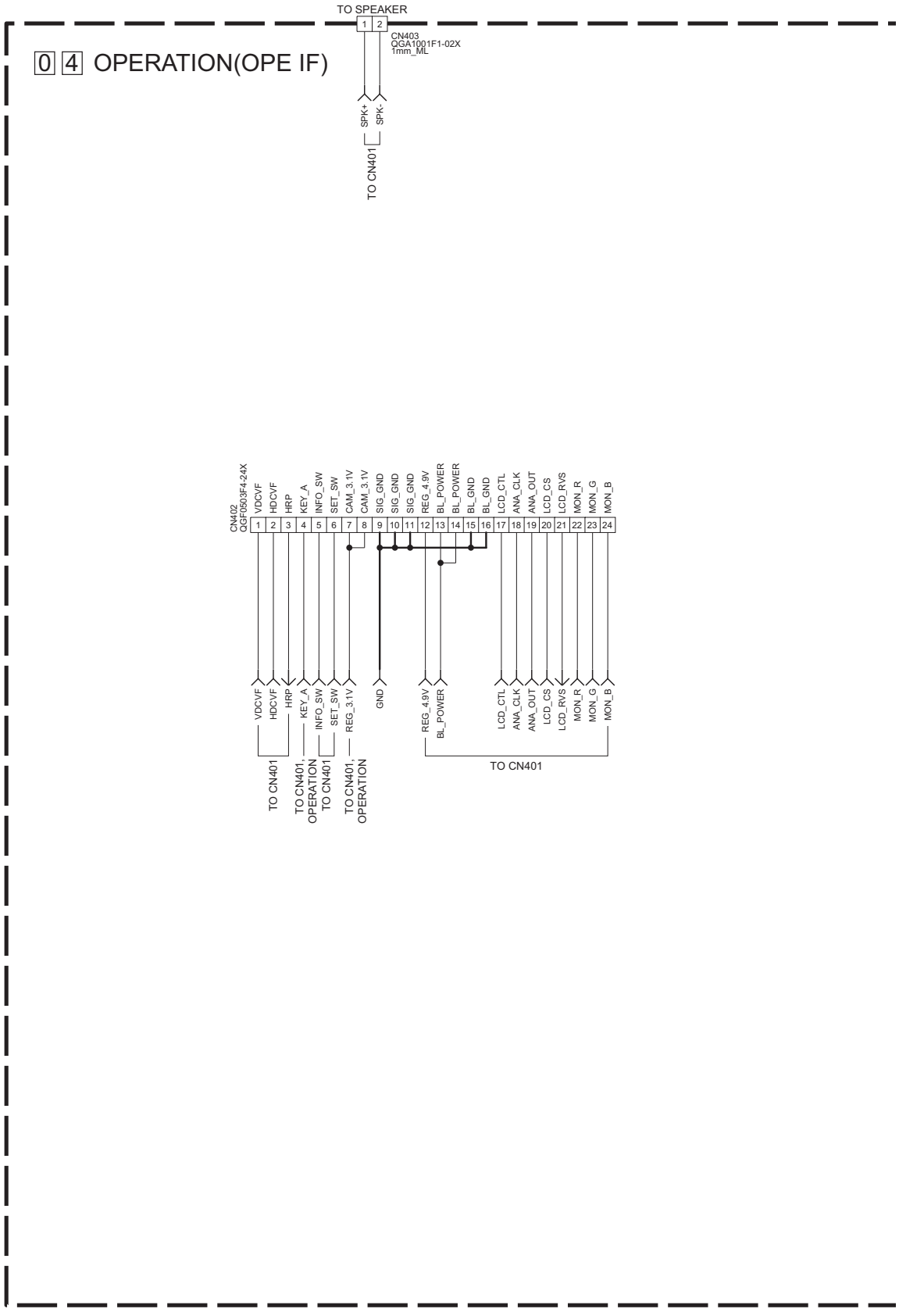

NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.



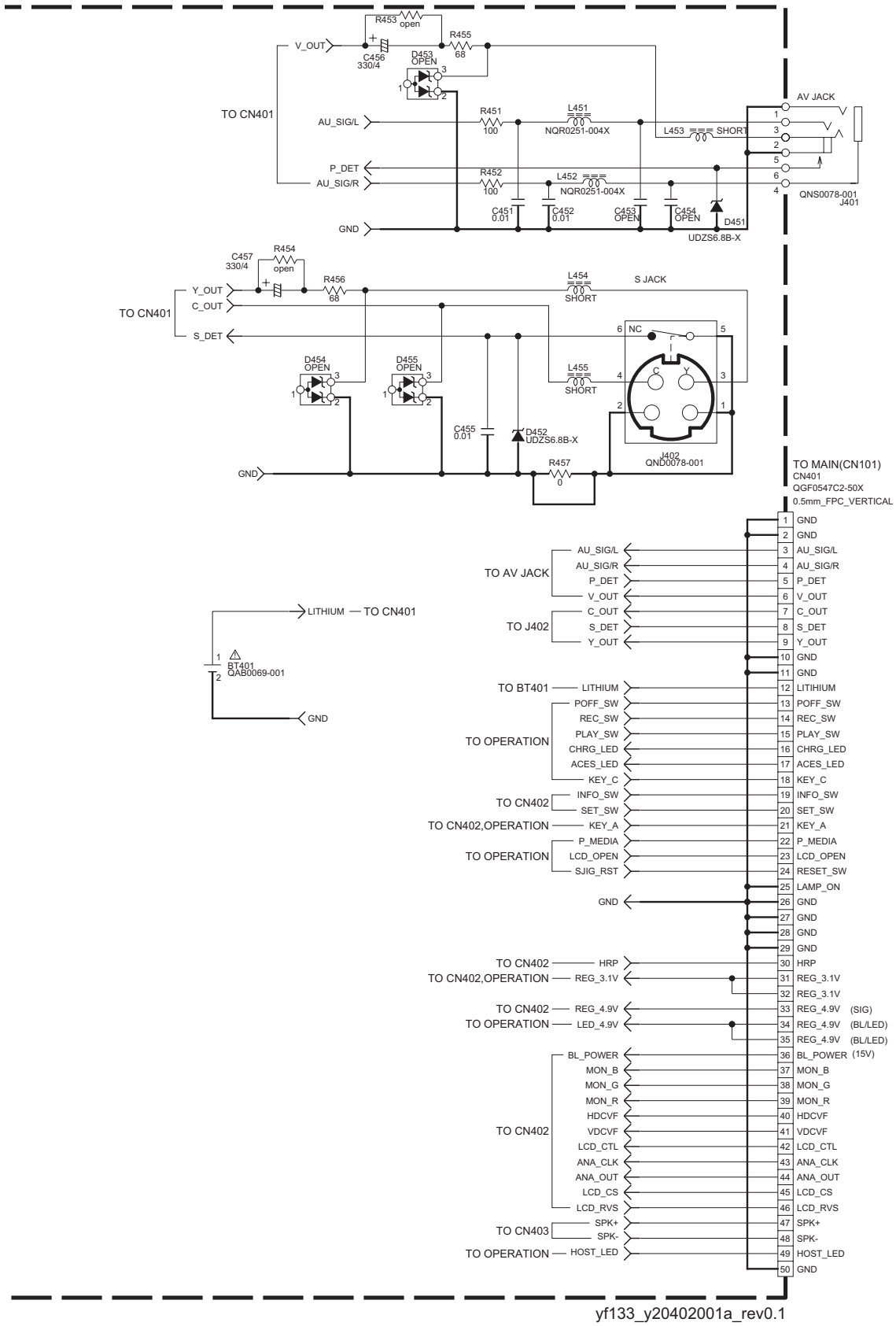

yf133_y30345001a_rev0.1

ONS".

## ■ OPERATION(OPE IF) SCHEMATIC DIAGRAM



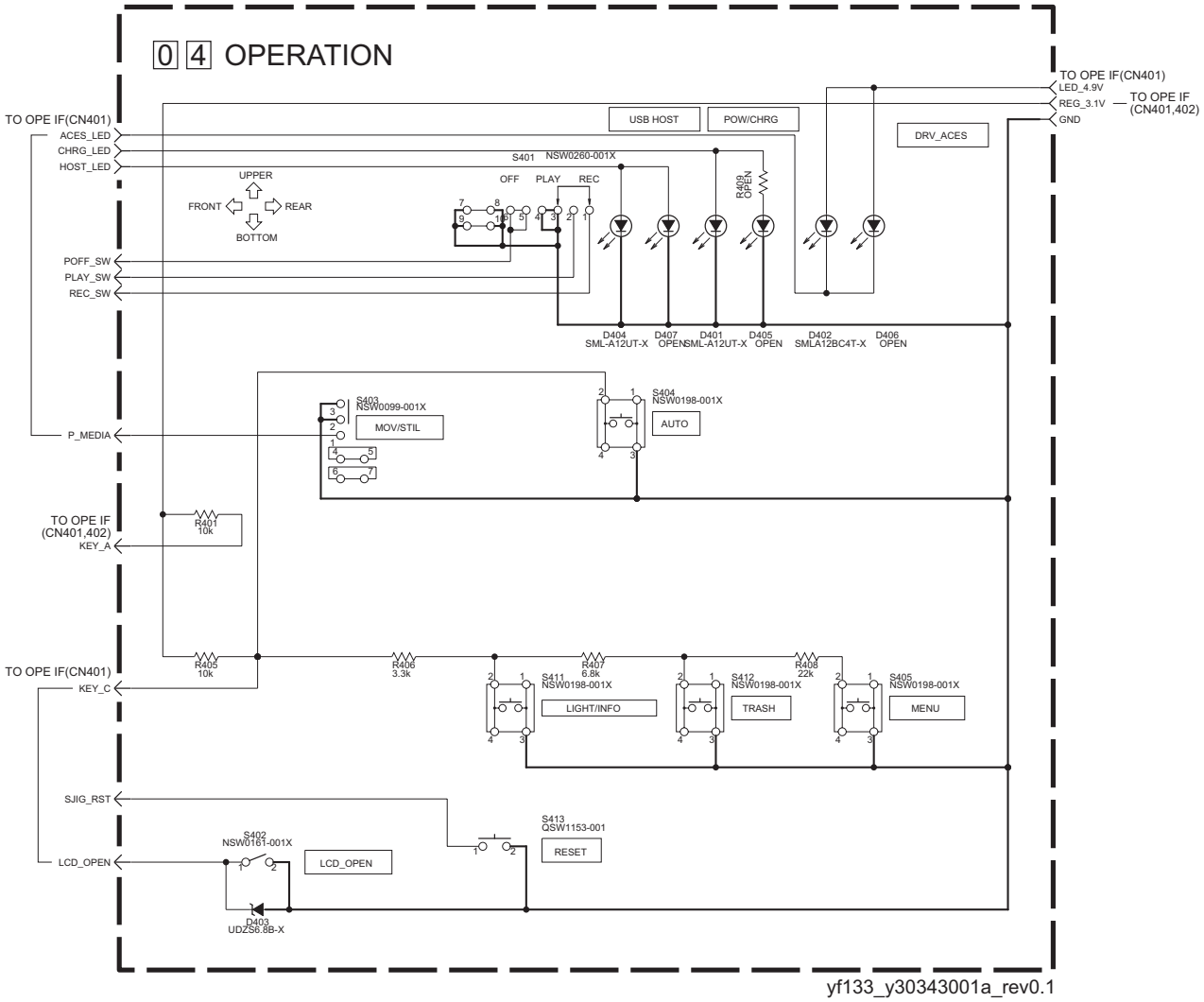

NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.




yf133_y20402001a_rev0.1

ONS".

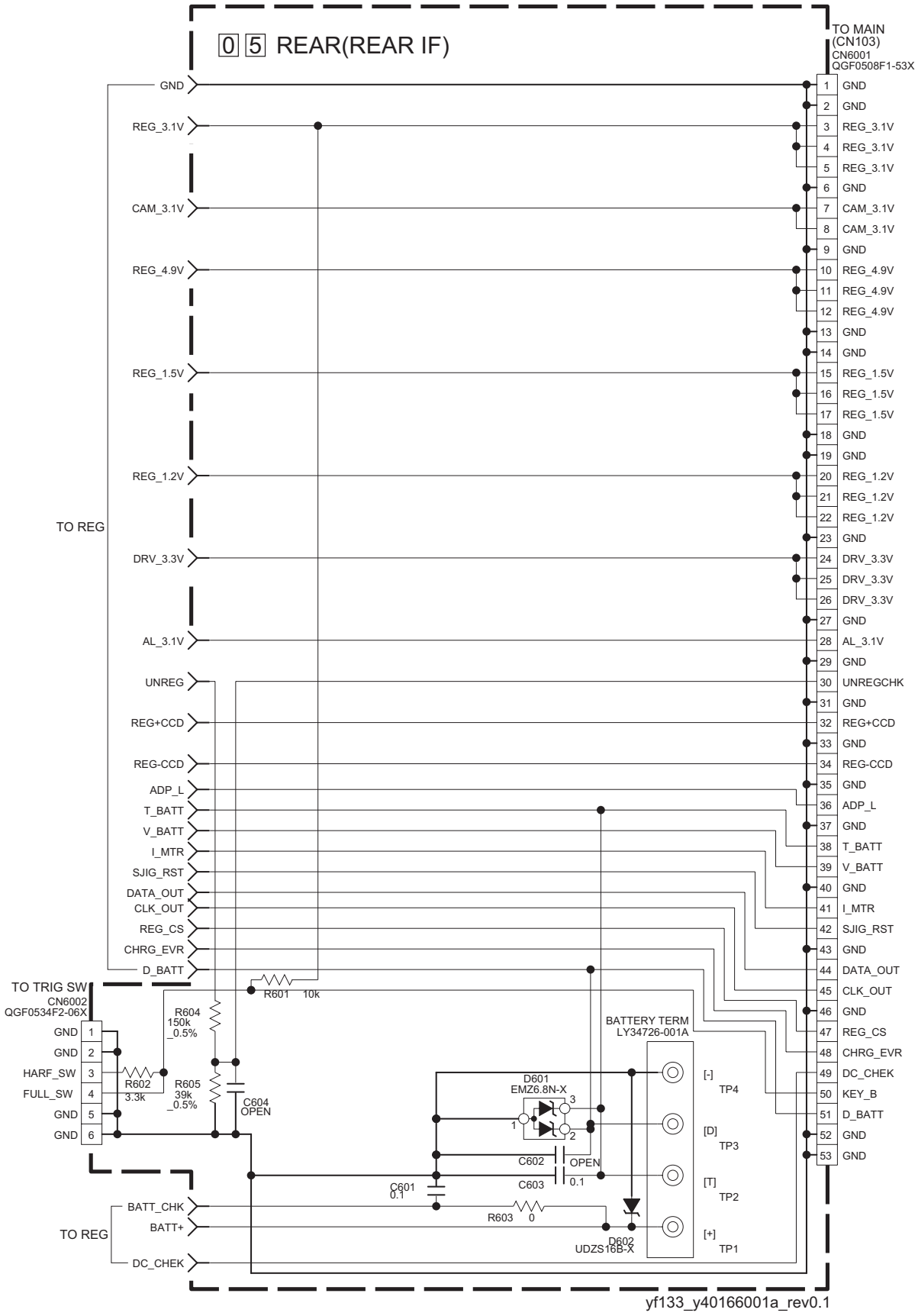
## ■ OPERATION SCHEMATIC DIAGRAM




yf133_y30343001a_rev0.1

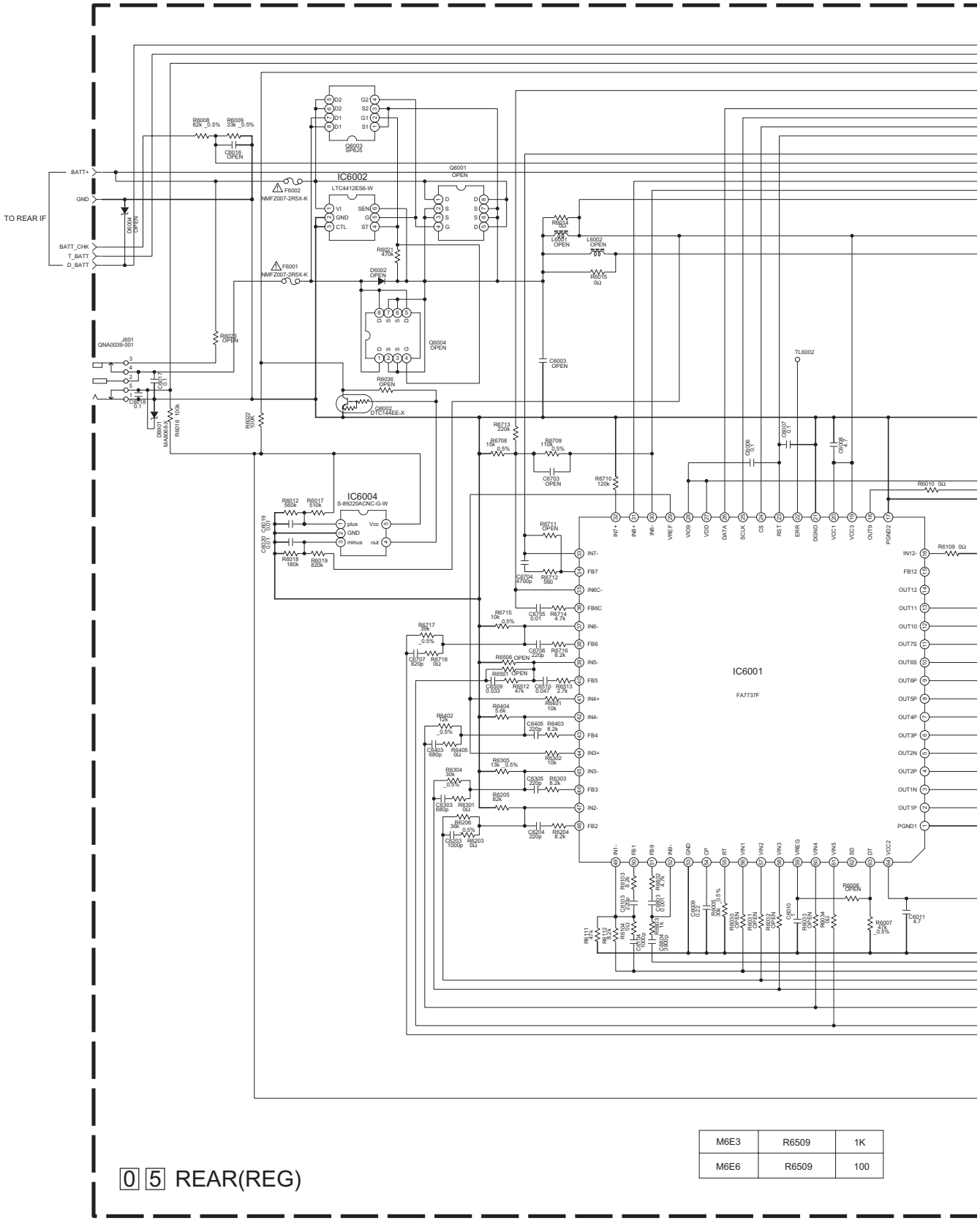
NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.

## ■ REAR(REAR IF) SCHEMATIC DIAGRAM



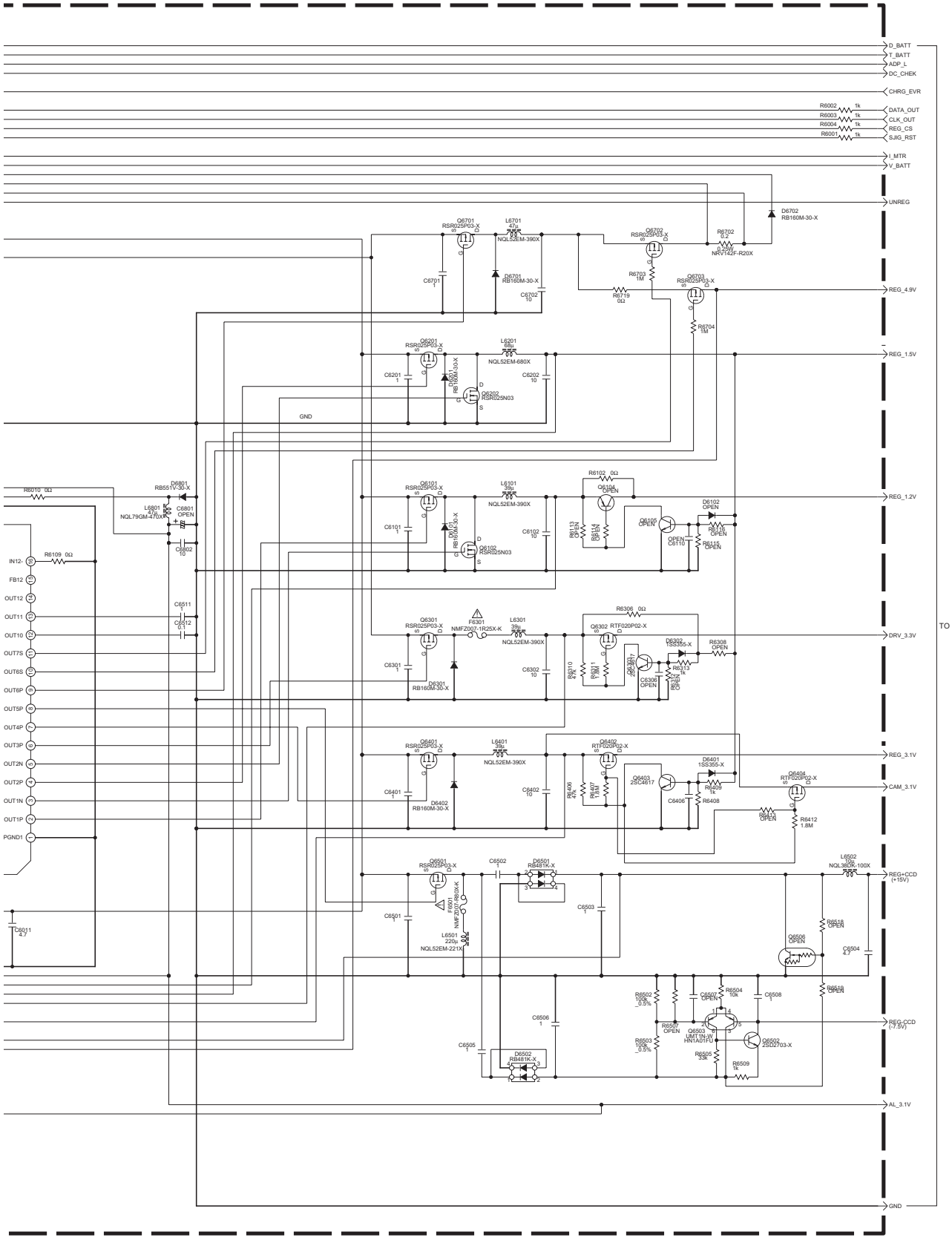

NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.

## ■ REAR(REG) SCHEMATIC DIAGRAM




| | | |
|---|---|---|
| M6E3 | R6509 | 1K |
| M6E6 | R6509 | 100 |

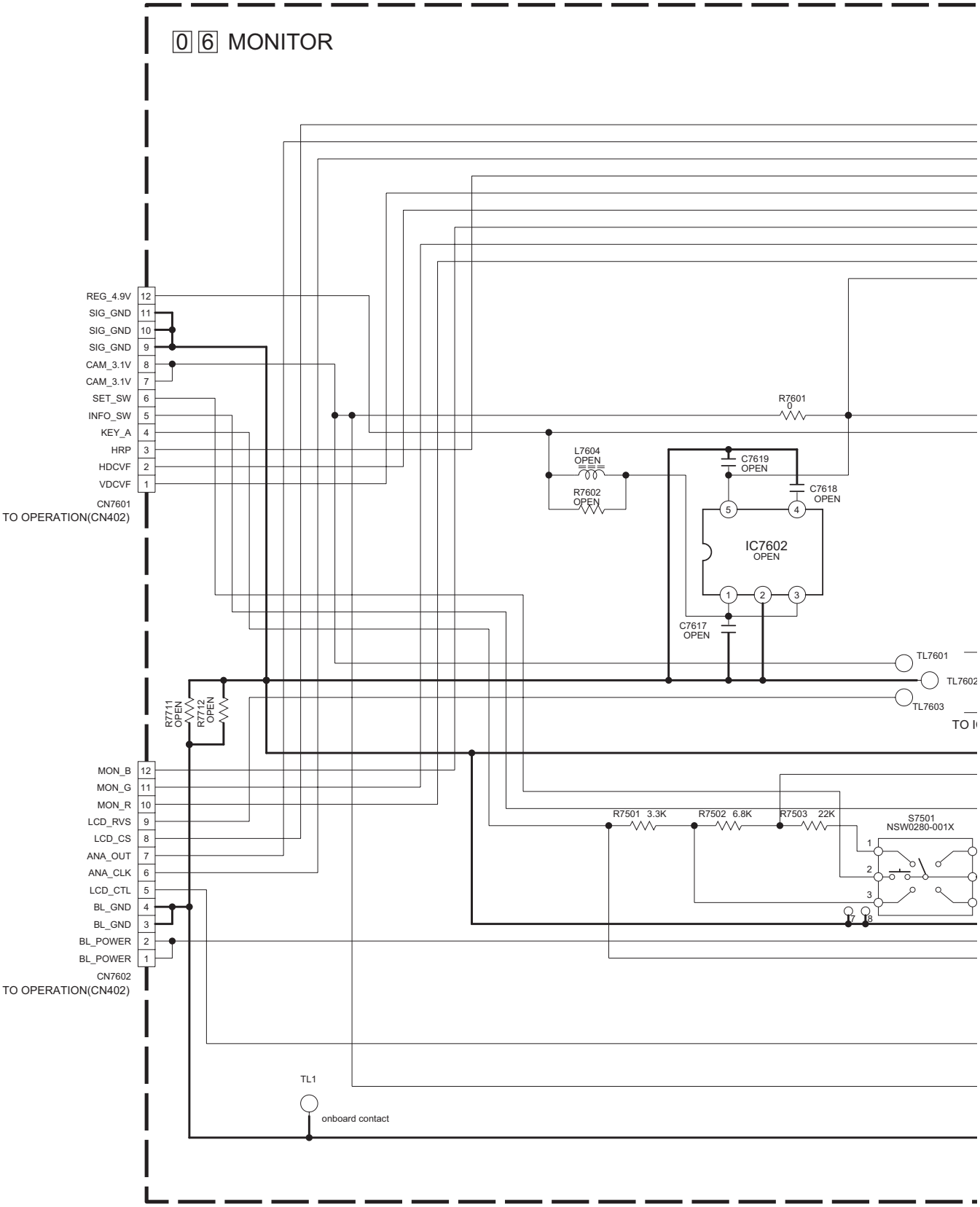
NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.



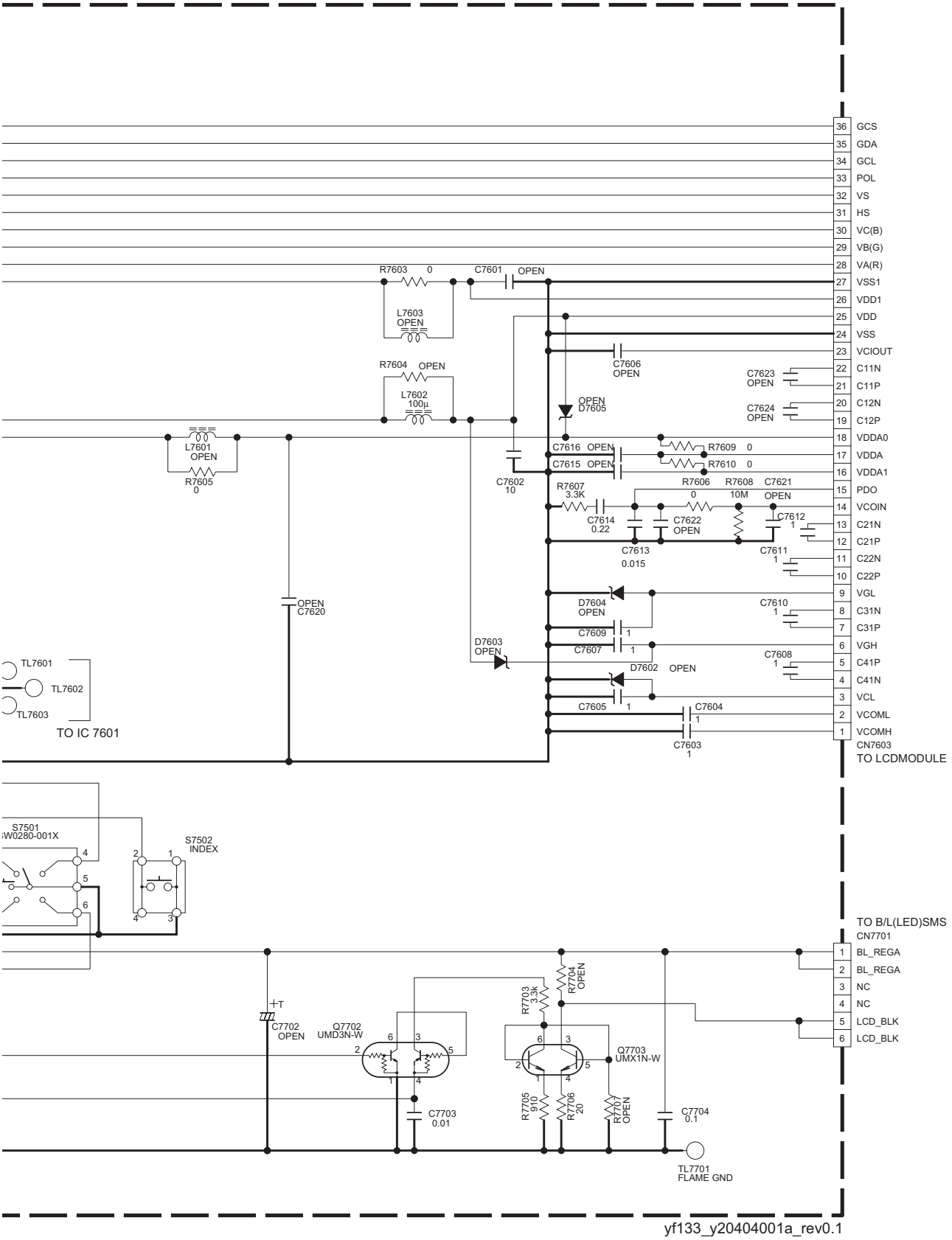

yf133_y10613001a_rev0.1

ONS".

## ■ MONITOR SCHEMATIC DIAGRAM




NOTES: 1. For the destination of each signal and further line connections that are cut off from this diagram, refer to "BOARD INTERCONNECTIONS".
2. The parts with marked (∗) is not used.




yf133_y20404001a_rev0.1

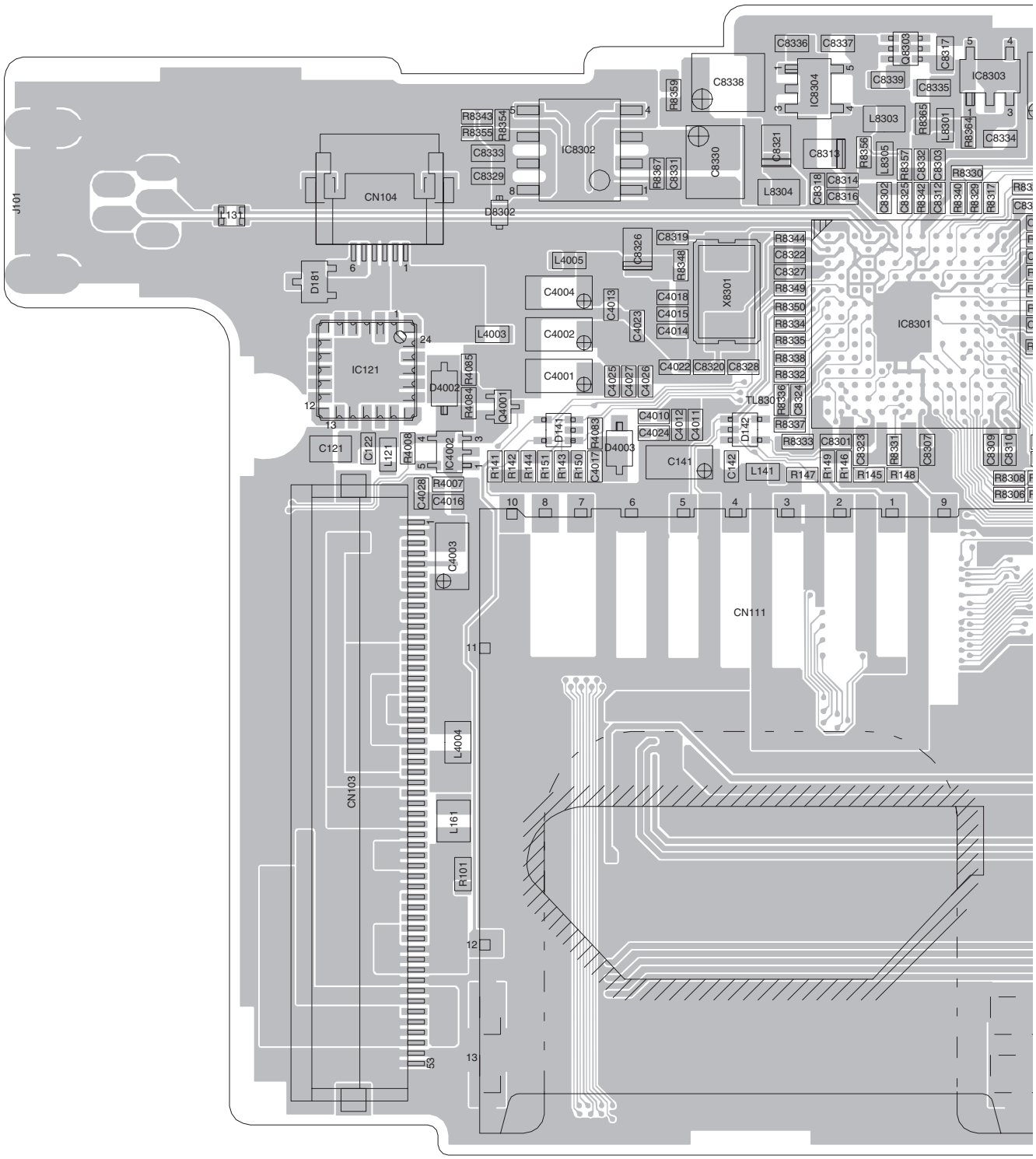
ONS".

## ■ MAIN CIRCUIT BOARD

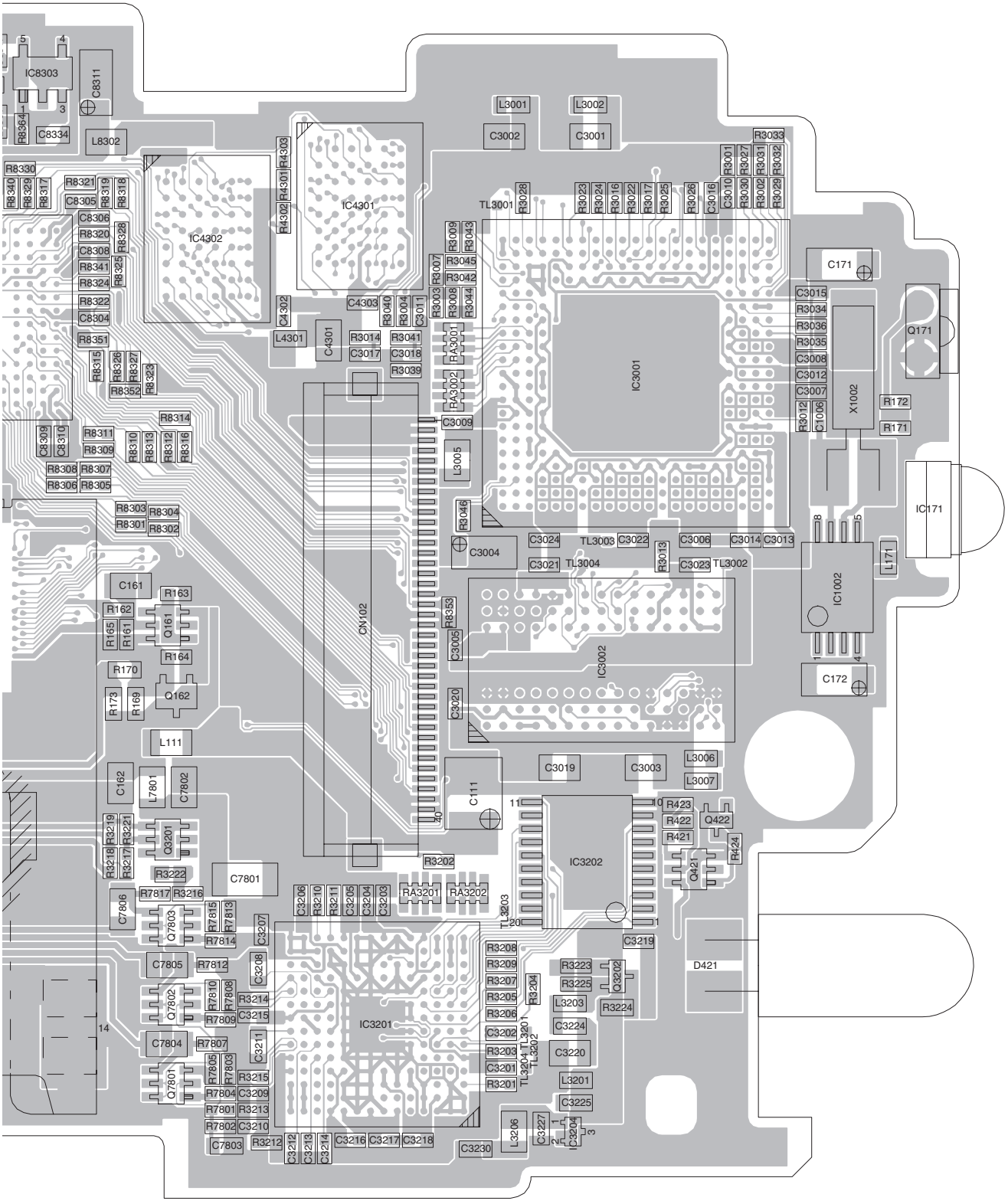
Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

**<01>MAIN**
**LYB10066-001B**

**FOIL SIDE(**



**ÒIL SIDE(B)**

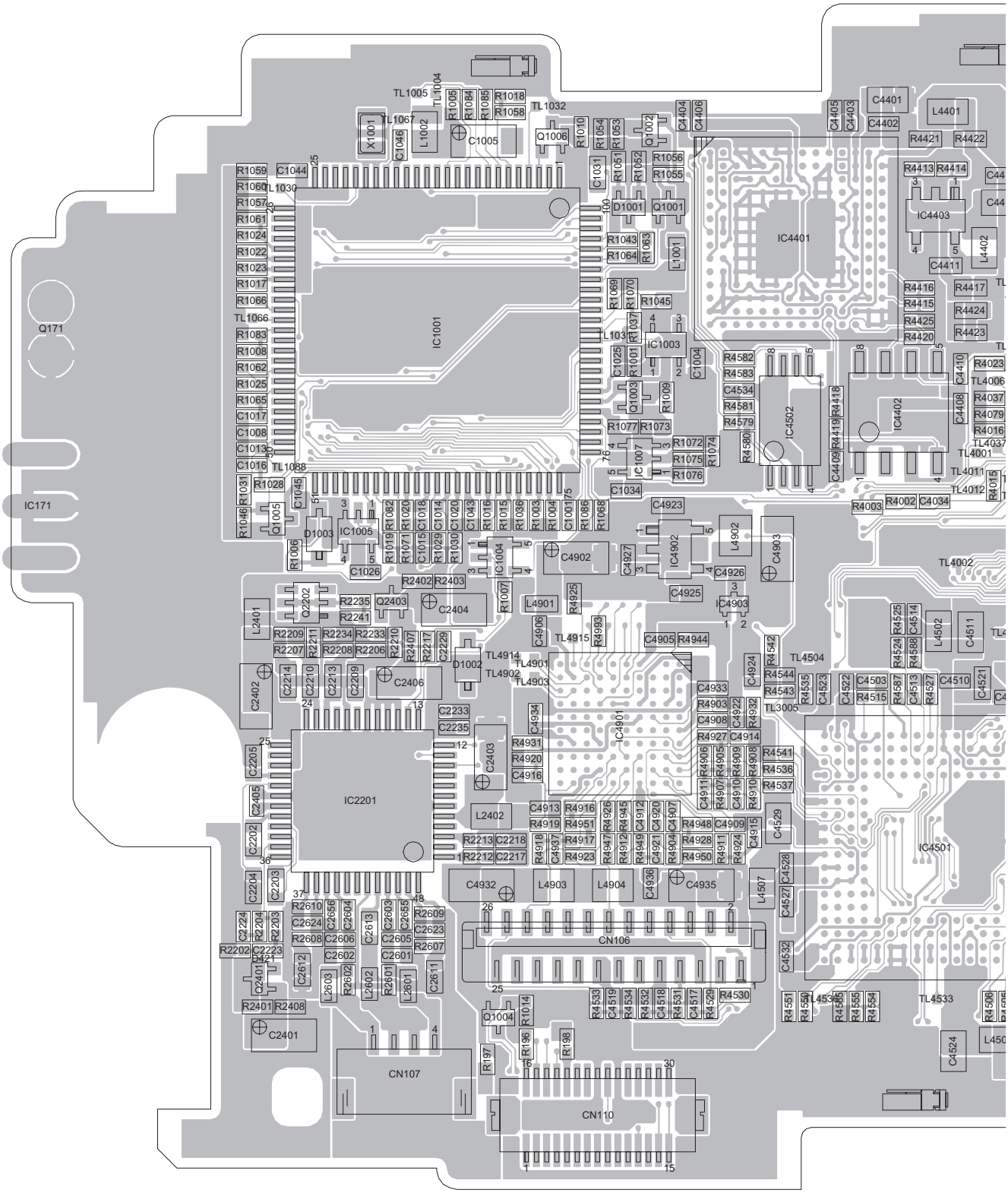

IC8303
C8311
L8302
IC4301
IC4302
IC3001
IC3002
IC3201
IC3202
IC1002
IC171
X1002
Q171
CN102
L3001
L3002
C3002
C3001
TL3001
C171
C172
L171
D421
Q422
Q421
Q161
Q162
Q3201
Q7803
Q7802
Q7801
C7801
C7802
C7803
C7804
C7805
C7806
L111
C111
L3006
L3007
C3019
C3003
C3004
C3005
C3020
L3005
C3024
C3021
TL3003
TL3004
C3022
C3023
TL3002
C3006
C3014
C3013
C3015
C3008
C3012
C3007
C3009
C3010
C3030
C3016
C161
C162
C4301
C4302
C4303
L4301
L3203
L3201
C3224
C3220
C3225
C3227
C3230
L3206
C3204
C3219
C3202
C3203
C3205
C3206
C3207
C3208
C3209
C3210
C3211
C3212
C3213
C3214
C3215
C3216
C3217
C3218
R3033
R3001
R3027
R3031
R3032
R3029
R3028
R3023
R3024
R3016
R3022
R3017
R3025
R3026
R3009
R3043
R3007
R3045
R3042
R3003
R3008
R3044
R3040
R3004
R3011
R3014
R3041
R3017
R3018
R3039
RA3001
RA3002
R3046
R3013
R3012
R172
R171
R8303
R8304
R8301
R8302
R8314
R8311
R8309
R8310
R8313
R8312
R8316
R8308
R8307
R8306
R8305
R8330
R8340
R8329
R8317
R8321
R8319
R8318
C8306
R8320
R8328
C8308
R8341
R8325
R8324
R8322
C8304
R8351
R8315
R8326
R8327
R8323
R8352
C8309
C8310
C8305
C8334
R8364
R163
R162
R165
R161
R164
R170
R173
R169
L7801
R3219
R3221
R3218
R3217
R3222
R3216
R7817
R7815
R7813
R7814
R7812
R7810
R7808
R7809
R7807
R7805
R7803
R7804
R7801
R7802
R3202
R3208
R3209
R3207
R3205
R3206
R3204
R3223
R3225
R3224
R3203
R3201
RA3201
RA3202
TL3201
TL3202
TL3203
TL3204
R423
R422
R421
R424
R353
11
40
20
1
14
5
4
8
5
1
4
1
2
3

## ■ MAIN CIRCUIT BOARD

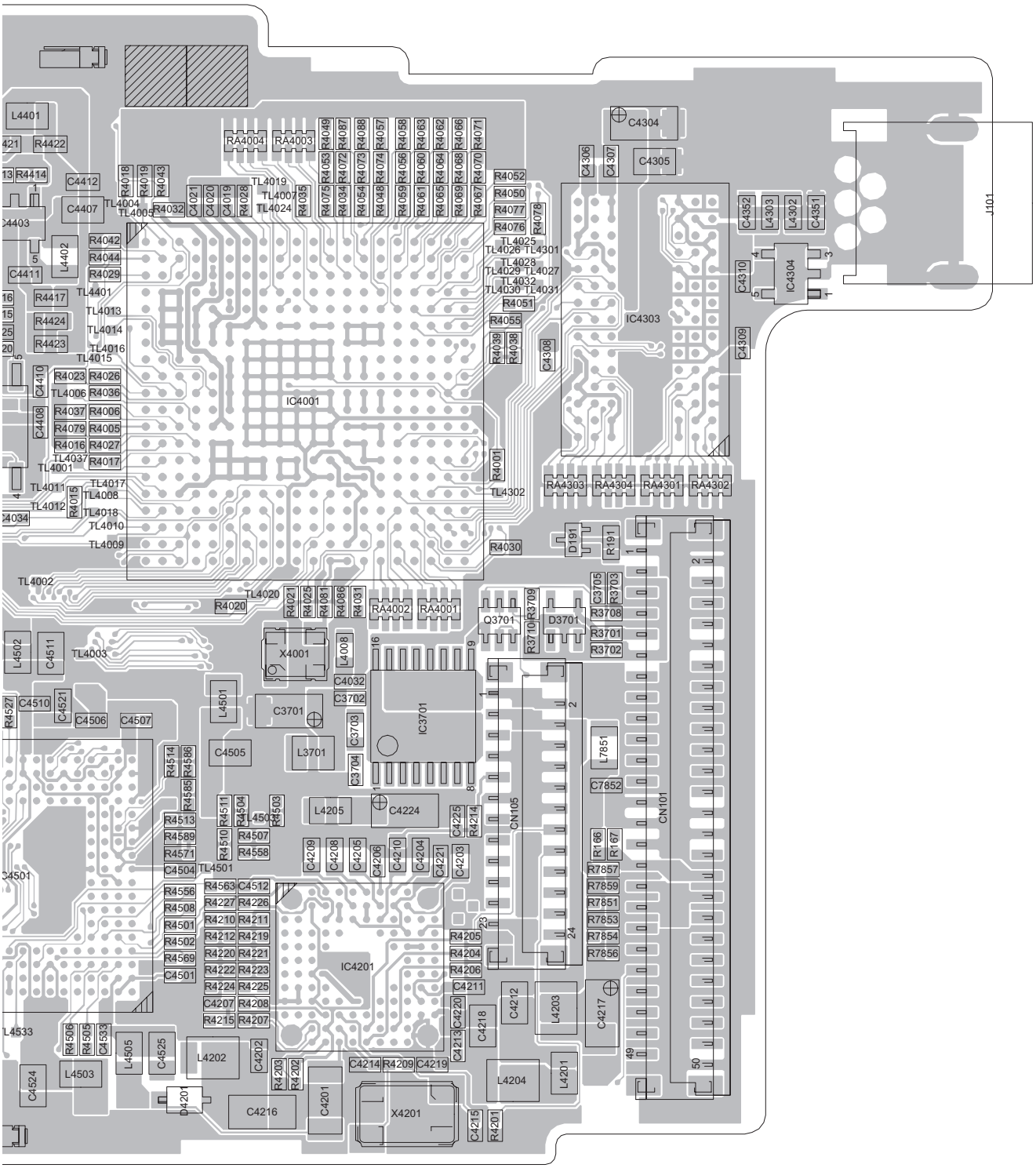
Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

**<01>MAIN**
**LYB10066-001B**

**COMPONENT S**



## ONENT SIDE(A)


L4401
R4422
R4414
C4412
C4407
TL4004
TL4005
R4032
R4018
R4019
R4043
C4021
C4020
C4019
R4028
TL4019
TL4007
TL4024
R4035
R4049
R4087
R4088
R4057
R4058
R4083
R4062
R4066
R4071
R4072
R4073
R4074
R4056
R4060
R4064
R4068
R4070
R4075
R4034
R4054
R4048
R4059
R4061
R4065
R4069
R4067
R4052
R4050
R4077
R4076
R4078
TL4025
TL4026
TL4301
TL4028
TL4029
TL4027
TL4032
TL4030
TL4031
R4051
R4055
R4039
R4038
C4308
IC4303
C4304
C4306
C4307
C4305
C4352
L4303
L4302
C4351
J101
C4310
IC4304
C4309
L4402
R4042
R4044
R4029
C4411
R4417
TL4401
TL4013
R4424
TL4014
R4423
TL4016
TL4015
C4410
R4023
R4026
TL4006
R4036
C4408
R4037
R4006
R4079
R4005
R4016
R4027
TL4037
R4017
TL4001
TL4011
TL4017
R4015
TL4008
TL4012
TL4018
TL4010
TL4009
IC4001
R4001
TL4302
RA4303
RA4304
RA4301
RA4302
D191
R191
R4030
TL4002
TL4020
R4020
R4021
R4025
R4081
R4086
R4031
RA4002
RA4001
Q3701
R3709
D3701
C3705
R3703
R3708
R3701
R3702
R3710
L4502
C4511
TL4003
X4001
L4008
C4032
C3702
C4510
C4521
C4506
C4507
C3701
C3703
IC3701
L4501
C4505
L3701
C3704
L7851
C7852
R4514
R4586
R4585
R4513
R4589
R4571
C4504
TL4501
R4511
R4504
R4503
L4503
L4205
C4224
C4225
R4214
R4510
R4507
R4558
C4209
C4208
C4205
C4206
C4210
C4204
C4221
C4203
CN105
CN101
R166
R167
R7857
R7859
R7851
R7853
R7854
R7856
C4501
R4563
C4512
R4556
R4227
R4226
R4508
R4210
R4211
R4501
R4212
R4219
R4502
R4220
R4221
R4569
R4222
R4223
C4501
R4224
R4225
C4207
R4208
R4215
R4207
IC4201
R4205
R4204
R4206
C4211
C4212
L4203
C4217
C4220
C4218
C4213
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R4506
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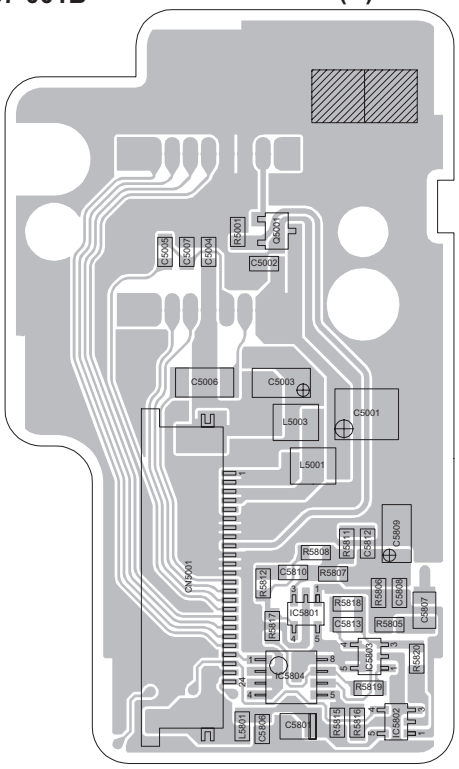
C4533
L4505
C4525
L4202
C4202
R4203
R4202
C4214
R4209
C4219
L4204
L4201
C4524
L4503
D4201
C4216
C4201
X4201
C4215
R4201

## ■ CCD, OPE AND MONITOR CIRCUIT BOARDS

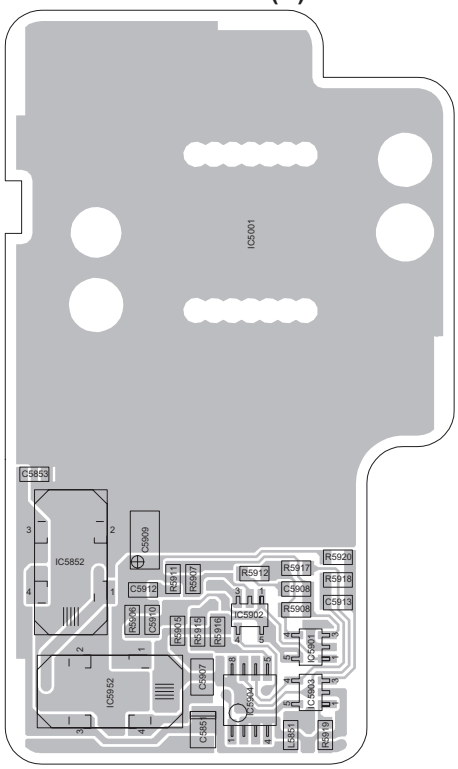
Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

**<02>CCD**
**LYB10067-001B**

**FOIL SIDE(B)**

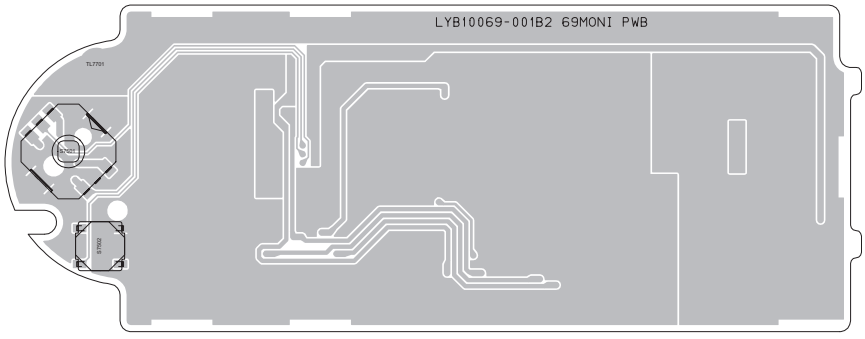


**COMPONENT SIDE(A)**

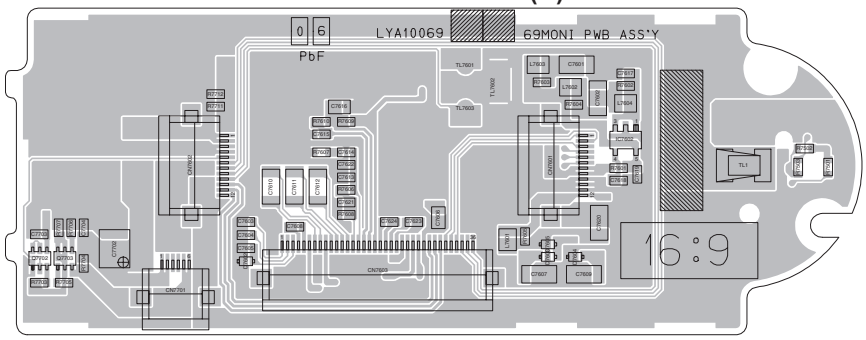


**<06>MONITOR**
**LYB10069-001B**

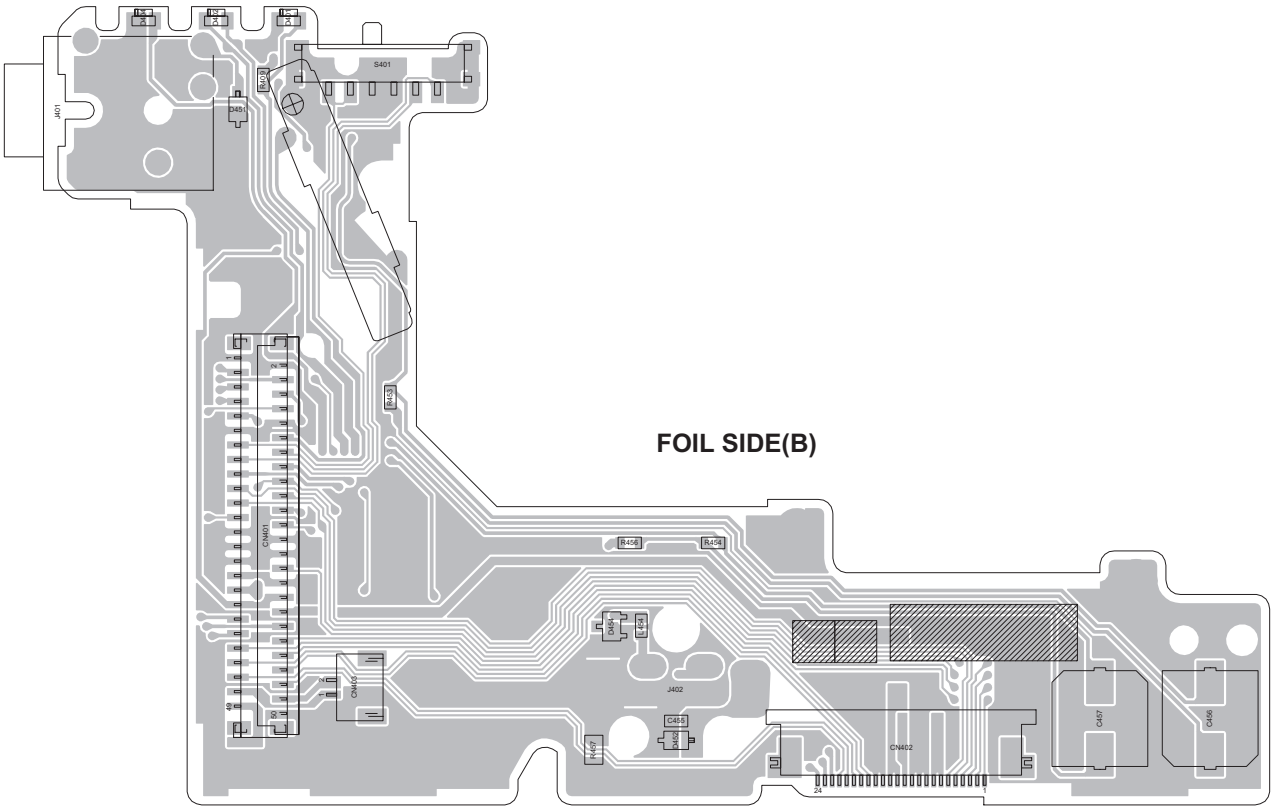
**FOIL SIDE(B)**



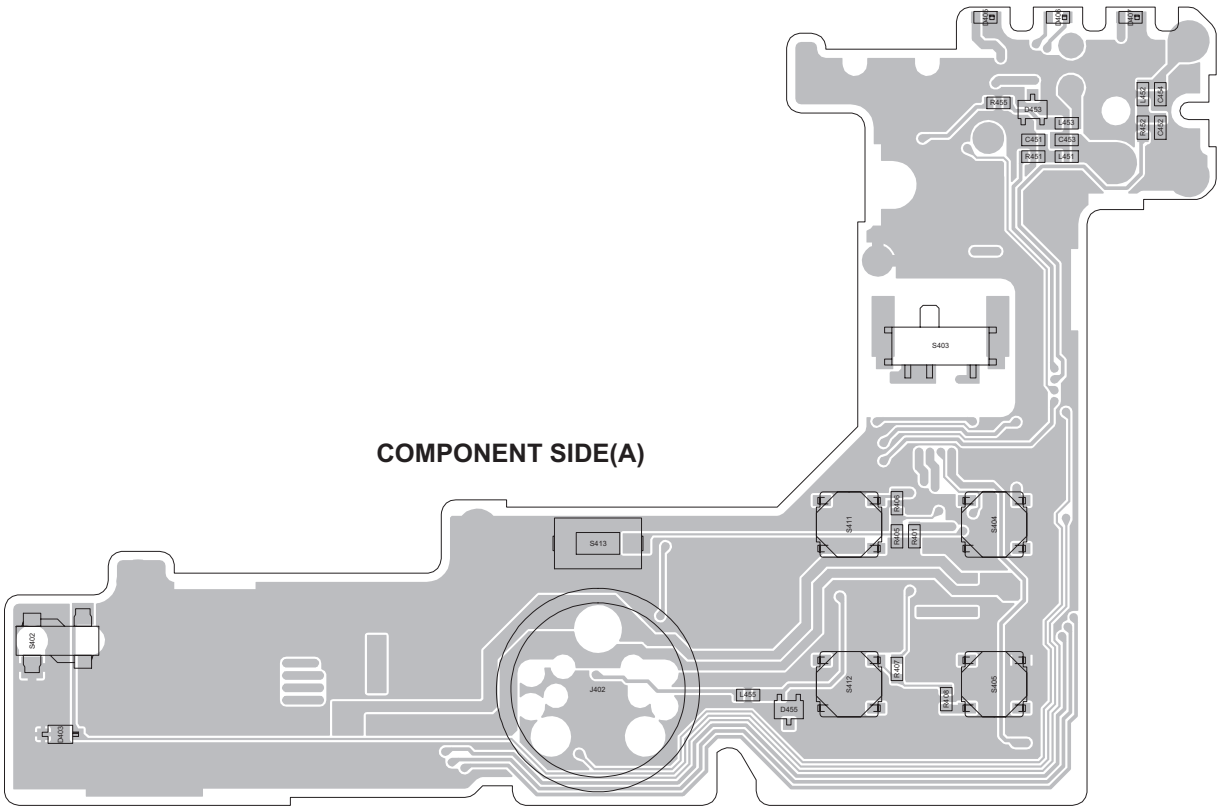

**COMPONENT SIDE(A)**



**<04>OPE**
**LYB10069-001B**




**FOIL SIDE(B)**




**COMPONENT SIDE(A)**

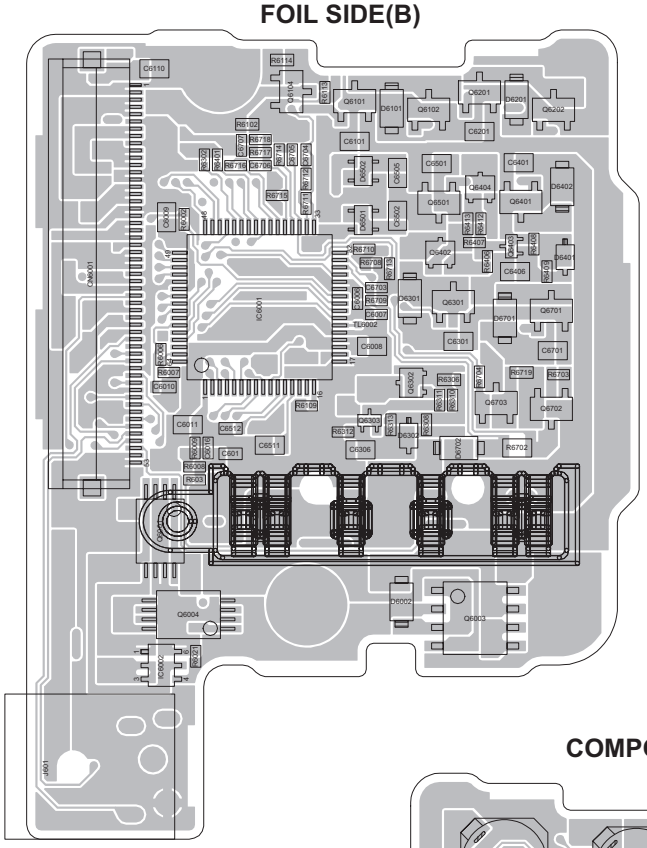
## ■ REAR CIRCUIT BOARD

CAUTION :
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE AND RATED FUSE(S).
ATTENTION :
POUR UNE PROTECTION PERMANENTE CONTRE LES RISQUE D'INCENDE,
REMPLACER LES FUSIBLES PAR UNAAUTRE DE MEME TYPE ET DE MEME TENSION.

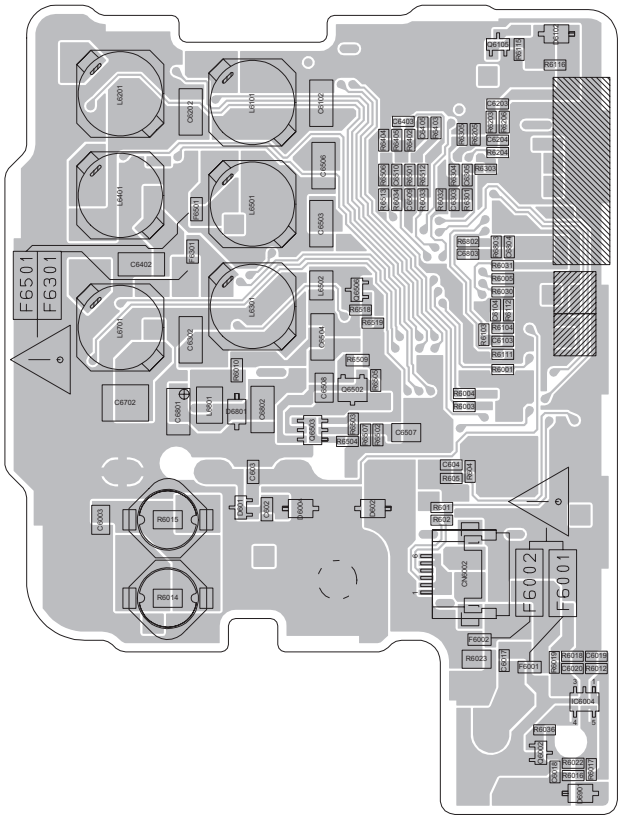
Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)

**<05>REAR**
**LYB10068-001B**

**FOIL SIDE(B)**



**COMPONENT SIDE(A)**



# ■ VOLTAGE CHARTS

<MAIN>

| MODE PIN NO. | REC | PLAY |
|---|---|---|
| IC121 | | |
| 1 | 0 | 0 |
| 2 | 1.7 | 1.5 |
| 3 | 0 | 0 |
| 4 | 1.9 | 1.8 |
| 5 | 1.5 | 1.5 |
| 6 | 0 | 0 |
| 7 | 1.5 | 1.5 |
| 8 | 0 | 0 |
| 9 | 0 | 0 |
| 10 | 0 | 0 |
| 11 | 0 | 0 |
| 12 | 0 | 0 |
| 13 | 3.0 | 3.0 |
| 14 | 0 | 0 |
| 15 | 3.0 | 3.0 |
| 16 | 1.5 | 1.5 |
| 17 | 3.0 | 3.0 |
| 18 | 0 | 0 |
| 19 | 0 | 0 |
| 20 | 0 | 0 |
| 21 | 0 | 0 |
| 22 | 0 | 0 |
| 23 | 0 | 0 |
| 24 | 0 | 0 |
| IC171 | | |
| 1 | 3.0 | 3.0 |
| 2 | 0 | 0 |
| 3 | 3.0 | 3.0 |
| IC1001 | | |
| 1 | 3.0 | 3.0 |
| 2 | 0 | 3.0 |
| 3 | 0 | 3.0 |
| 4 | 0 | 0 |
| 5 | 0 | 0 |
| 6 | 3.1 | 3.1 |
| 7 | 0 | 0 |
| 8 | 3.0 | 0 |
| 9 | 2.9 | 2.9 |
| 10 | 3.0 | 1.9 |
| 11 | 0 | 0 |
| 12 | 3.0 | 3.0 |
| 13 | 3.1 | 0.1 |
| 14 | 0.3 | 0.3 |
| 15 | 3.0 | 3.1 |
| 16 | 3.0 | 3.0 |
| 17 | 3.0 | 3.0 |
| 18 | 0 | 0 |
| 19 | 0 | 0 |
| 20 | 0 | 0 |
| 21 | 3.0 | 3.0 |
| 22 | 3.0 | 1.1 |
| 23 | 1.4 | 0 |
| 24 | 1.3 | 1.4 |
| 25 | 0 | 2.1 |
| 26 | 0 | 0 |
| 27 | 3.0 | 3.0 |
| 28 | 0 | 0 |
| 29 | 3.0 | 3.0 |
| 30 | 3.0 | 3.0 |
| 31 | 3.0 | 0 |
| 32 | 0 | 0 |
| 33 | 2.9 | 3.0 |
| 34 | 3.0 | 3.0 |
| 35 | 3.0 | 2.4 |
| 36 | 0 | 0 |
| 37 | 0 | 0 |
| 38 | 2.9 | 3.0 |
| 39 | 3.0 | 0 |
| 40 | 2.9 | 3.0 |
| 41 | 3.1 | 3.0 |
| 42 | 0 | 0 |
| 43 | 0 | 0 |
| 44 | 2.9 | 2.8 |
| 45 | 0 | 0 |
| 46 | 3.1 | 3.1 |
| 47 | 1.5 | 1.5 |
| 48 | 0 | 0 |
| 49 | 0 | 0 |
| 50 | 3.0 | 3.0 |
| 51 | 0.5 | 0.5 |
| 52 | 3.0 | 3.0 |
| 53 | 0 | 0 |
| 54 | 3.1 | 3.0 |
| 55 | 3.0 | 3.0 |
| 56 | 3.0 | 3.0 |
| 57 | 3.0 | 3.0 |
| 58 | 3.1 | 3.1 |
| 59 | 3.1 | 3.1 |
| 60 | 2.8 | 2.8 |
| 61 | 0 | 0 |
| 62 | 2.2 | 2.2 |
| 63 | 3.1 | 3.0 |
| 64 | 3.1 | 3.1 |
| 65 | 0 | 0 |
| 66 | 3.0 | 3.0 |
| 67 | 3.0 | 3.0 |

| MODE PIN NO. | REC | PLAY |
|---|---|---|
| 68 | 3.0 | 3.0 |
| 69 | 3.0 | 3.0 |
| 70 | 3.0 | 3.0 |
| 71 | 1.1 | 1.1 |
| 72 | 3.0 | 3.0 |
| 73 | 3.0 | 3.0 |
| 74 | 3.0 | 3.0 |
| 75 | 3.0 | 3.0 |
| 76 | 3.0 | 3.0 |
| 77 | 0 | 0 |
| 78 | 2.8 | 3.0 |
| 79 | 2.6 | 2.6 |
| 80 | 0 | 0 |
| 81 | 0 | 0 |
| 82 | 3.0 | 3.0 |
| 83 | 3.0 | 3.0 |
| 84 | 0 | 0 |
| 85 | 0 | 0 |
| 86 | 0 | 0 |
| 87 | 0 | 0 |
| 88 | 3.0 | 3.0 |
| 89 | 3.0 | 3.0 |
| 90 | 3.0 | 3.0 |
| 91 | 3.0 | 3.0 |
| 92 | 0 | 0 |
| 93 | 3.0 | 0 |
| 94 | 0 | 0 |
| 95 | 0 | 0 |
| 96 | 0 | 0 |
| 97 | 3.0 | 3.1 |
| 98 | 0 | 0 |
| 99 | 3.0 | 3.1 |
| 100 | 0 | 0 |
| IC1002 | | |
| 1 | 0 | 0 |
| 2 | 3.0 | 3.0 |
| 3 | 2.9 | 3.0 |
| 4 | 0 | 0 |
| 5 | 0 | 0 |
| 6 | 0.4 | 0.3 |
| 7 | 0.3 | 0.3 |
| 8 | 3.0 | 2.9 |
| IC1003 | | |
| 1 | 0 | 3.0 |
| 2 | 3.0 | 3.0 |
| 3 | 0 | 0 |
| 4 | 0 | 0 |
| IC1004 | | |
| 1 | 3.0 | 3.0 |
| 2 | 3.0 | 3.0 |
| 3 | 0 | 0 |
| 4 | 0 | 3.0 |
| 5 | 3.0 | 3.0 |
| IC1005 | | |
| 1 | 3.0 | 3.0 |
| 2 | 0 | 3.0 |
| 3 | 0 | 0 |
| 4 | 0 | 0 |
| 5 | 3.0 | 3.0 |
| IC1007 | | |
| 1 | 1.2 | 1.4 |
| 2 | 0 | 0 |
| 3 | 1.2 | 1.3 |
| 4 | 0 | 0 |
| 5 | 3.0 | 3.0 |
| IC2201 | | |
| 1 | 0 | 1.5 |
| 2 | 0 | 0 |
| 3 | 0.3 | 1.5 |
| 4 | 3.0 | 3.0 |
| 5 | 3.1 | 3.0 |
| 6 | 0 | 0 |
| 7 | 1.5 | 1.5 |
| 8 | 1.4 | 1.3 |
| 9 | 1.5 | 1.5 |
| 10 | 2.5 | 2.4 |
| 11 | 2.9 | 0 |
| 12 | 2.7 | 2.7 |
| 13 | 1.5 | 1.5 |
| 14 | 1.5 | 0 |
| 15 | 0 | 0 |
| 16 | 0 | 0 |
| 17 | 0 | 0 |
| 18 | 0 | 0 |
| 19 | 3.1 | 3.1 |
| 20 | 0 | 0 |
| 21 | 0.3 | 0.2 |
| 22 | 1.5 | 1.5 |
| 23 | 0.3 | 0.2 |
| 24 | 1.5 | 1.5 |
| 25 | 0 | 0 |
| 26 | 0 | 0 |
| 27 | 4.9 | 4.9 |
| 28 | 0 | 0 |
| 29 | 2.4 | 2.4 |
| 30 | 0 | 0 |
| 31 | 3.1 | 3.1 |

| MODE PIN NO. | REC | PLAY |
|---|---|---|
| 32 | 1.5 | 1.6 |
| 33 | 0.2 | 1.5 |
| 34 | 0.2 | 1.5 |
| 35 | 0 | 1.5 |
| 36 | 1.5 | 1.5 |
| 37 | 1.5 | 1.5 |
| 38 | 1.6 | 1.5 |
| 39 | 1.5 | 0.6 |
| 40 | 1.5 | 0 |
| 41 | 0 | 0 |
| 42 | 4.2 | 4.4 |
| 43 | 2.8 | 0 |
| 44 | 4.1 | 4.4 |
| 45 | 1.5 | 0 |
| 46 | 1.5 | 0.2 |
| 47 | 1.5 | 1.5 |
| 48 | 1.5 | 1.5 |
| IC3001 | - | - |
| IC3002 | - | - |
| IC3201 | - | - |
| IC3202 | | |
| 1 | 2.7 | 2.7 |
| 2 | 2.2 | 2.3 |
| 3 | 2.5 | 2.5 |
| 4 | 3.0 | 3.0 |
| 5 | 3.1 | 3.0 |
| 6 | 3.1 | 3.0 |
| 7 | 0 | 0 |
| 8 | 1.4 | 1.4 |
| 9 | 0 | 0 |
| 10 | 0 | 0 |
| 11 | 0 | 0 |
| 12 | 0 | 0 |
| 13 | 0 | 0 |
| 14 | 0 | 0 |
| 15 | 0 | 0 |
| 16 | 0 | 0 |
| 17 | 0 | 0 |
| 18 | 0 | 0 |
| 19 | 2.9 | 3.0 |
| 20 | 2.8 | 2.9 |
| IC3204 | | |
| 1 | 2.5 | 2.5 |
| 2 | 3.0 | 3.0 |
| 3 | 0 | 0 |
| IC3701 | | |
| 1 | 0 | 0 |
| 2 | 0 | 0 |
| 3 | 0 | 0 |
| 4 | 0 | 0 |
| 5 | 0 | 0 |
| 6 | 0 | 0 |
| 7 | 0 | 0 |
| 8 | 0 | 0 |
| 9 | 4.9 | 4.9 |
| 10 | 0 | 0 |
| 11 | 0 | 0 |
| 12 | 0 | 0 |
| 13 | 0 | 0 |
| 14 | 0 | -0.1 |
| 15 | 4.9 | 4.9 |
| 16 | 0 | 0 |
| IC4001 | - | - |
| IC4201 | - | - |
| IC4301 | - | - |
| IC4302 | - | - |
| IC4303 | - | - |
| IC4304 | | |
| 1 | 0 | 3.1 |
| 2 | 0 | 0 |
| 3 | 2.9 | 3.1 |
| 4 | 0 | 0 |
| 5 | 2.5 | 2.5 |
| IC4401 | - | - |
| IC4403 | | |
| 1 | 0 | 0 |
| 2 | 0 | 0 |
| 3 | 0 | 3.1 |
| 4 | 0 | 0 |
| 5 | 2.5 | 2.5 |
| IC4501 | - | - |
| IC4502 | | |
| 1 | 3.0 | 0 |
| 2 | 0.2 | 0.3 |
| 3 | 3.0 | 3.1 |
| 4 | 0 | 0 |
| 5 | 3.0 | 3.1 |
| 6 | 3.1 | 3.1 |
| 7 | 3.1 | 3.1 |
| 8 | 3.0 | 3.1 |
| IC4901 | - | - |
| IC4902 | - | - |
| IC4903 | - | - |
| IC8301 | - | - |
| IC8302 | | |
| 1 | 0 | 0 |
| 2 | 4.8 | 4.9 |

| MODE PIN NO. | REC | PLAY |
|---|---|---|
| 3 | 4.9 | 4.9 |
| 4 | 0 | 0 |
| 5 | 3.0 | 3.1 |
| 6 | 0 | 0 |
| 7 | 0 | 0 |
| 8 | 0 | 0 |
| IC8303 | | |
| 1 | 3.1 | 3.0 |
| 2 | 0 | 0 |
| 3 | 3.1 | 3.1 |
| 4 | 0 | 0 |
| 5 | 0 | 1.8 |
| Q421 | | |
| 1 | 1.1 | 1.1 |
| 2 | 1.5 | 0 |
| 3 | 0 | 0 |
| 4 | 1.5 | 1.5 |
| 5 | 0.9 | 0.9 |
| 6 | 2.7 | 2.6 |
| Q422 | | |
| E | 0 | 0 |
| C | 1.1 | 1.1 |
| B | 0 | 0 |
| Q1001 | | |
| E | 0 | 0 |
| C | 0 | 0 |
| B | 3.0 | 0 |
| Q1002 | | |
| E | 0 | 0 |
| C | 0 | 3.0 |
| B | 0.5 | 0.6 |
| Q1003 | | |
| E | 0 | 3.0 |
| C | 2.9 | 3.0 |
| B | 0 | 0 |
| Q1005 | | |
| S | 0 | 0 |
| D | 3.0 | 3.0 |
| G | 3.0 | 3.0 |
| Q1006 | | |
| E | 0 | 3.1 |
| C | 2.9 | 0 |
| B | 0 | 3.0 |
| Q2002 | | |
| 1 | 0 | 0 |
| 2 | 0 | 0 |
| 3 | 0 | 0 |
| 4 | 0 | 0 |
| 5 | 0 | 0 |
| 6 | 0 | 0 |
| Q2401 | | |
| E | 4.2 | 4.5 |
| C | 4.9 | 4.8 |
| B | 4.8 | 4.8 |
| Q2403 | | |
| E | 3.1 | 0 |
| C | 4.9 | 0 |
| B | 3.7 | 3.7 |
| Q3202 | | |
| E | 1.7 | 1.8 |
| C | 2.1 | 2.6 |
| B | 2.5 | 2.5 |
| Q3701 | | |
| 1 | 0 | 2.6 |
| 2 | 3.0 | 3.1 |
| 3 | 3.9 | 3.9 |
| 4 | 4.9 | 4.9 |
| 5 | 4.2 | 4.3 |
| 6 | 4.2 | 4.2 |
| Q4001 | | |
| E | 0 | 0 |
| C | 0 | 0.3 |
| B | 0 | 0 |
| Q7801 | | |
| 1 | 2.3 | 2.3 |
| 2 | 2.9 | 2.9 |
| 3 | 15.0 | 15.0 |
| 4 | 6.3 | 6.4 |
| 5 | 6.9 | 7.0 |
| 6 | 6.9 | 7.0 |
| Q7802 | | |
| 1 | 2.3 | 2.3 |
| 2 | 2.9 | 2.9 |
| 3 | 15.0 | 15.0 |
| 4 | 6.3 | 6.3 |
| 5 | 6.8 | 6.9 |
| 6 | 6.8 | 6.9 |
| Q7803 | | |
| 1 | 2.3 | 2.3 |
| 2 | 2.9 | 2.9 |
| 3 | 15.0 | 14.9 |
| 4 | 6.3 | 6.3 |
| 5 | 6.8 | 6.9 |
| 6 | 6.9 | 6.9 |
| Q8303 | | |
| 1 | 0 | 0 |
| 2 | 3.0 | 3.1 |

| MODE PIN NO. | REC | PLAY |
|---|---|---|
| 3 | 0 | 0 |
| 4 | 0 | 0 |
| 5 | 0 | 0 |
| 6 | 0 | 0 |

<CCD>

| MODE PIN NO. | REC | PLAY |
|---|---|---|
| IC5001 | | |
| 1 | -7.1 | 0 |
| 2 | -7.1 | 15.0 |
| 3 | -0.3 | 0 |
| 4 | 0 | 14.9 |
| 5 | 0 | 0 |
| 6 | 0 | 0 |
| 7 | 11.2 | 10.6 |
| 8 | 14.9 | 14.9 |
| 9 | 12.8 | 12.7 |
| 10 | 9.5 | 9.5 |
| 11 | -7.6 | -7.6 |
| 12 | 1.4 | 0 |
| 13 | 1.2 | 0 |
| 14 | 10.0 | 10.0 |
| IC5801 | | |
| 1 | 1.3 | 1.3 |
| 2 | 0 | 0 |
| 3 | 1.3 | 1.3 |
| 4 | 1.3 | 1.3 |
| 5 | 3.1 | 3.1 |
| IC5803 | | |
| 1 | 1.4 | 1.3 |
| 2 | 0 | 0 |
| 3 | 0 | 0 |
| 4 | 1.5 | 1.2 |
| 5 | 3.0 | 3.1 |
| IC5804 | | |
| 1 | 1.4 | 0.2 |
| 2 | 0 | 0 |
| 3 | 0 | 0 |
| 4 | 0 | 0 |
| 5 | 0 | 0 |
| 6 | 1.6 | 1.1 |
| 7 | 1.4 | 1.3 |
| 8 | 3.1 | 3.1 |
| IC5852 | | |
| 1 | 1.3 | 1.3 |
| 2 | 0 | 0 |
| 3 | 3.1 | 0 |
| 4 | 1.6 | 1.6 |
| IC5901 | | |
| 1 | 1.3 | 1.3 |
| 2 | 0 | 0 |
| 3 | 1.2 | 1.3 |
| 4 | 0 | 1.3 |
| 5 | 3.1 | 3.0 |
| IC5902 | - | - |
| IC5903 | | |
| 1 | 1.4 | 1.3 |
| 2 | 0 | 0 |
| 3 | 1.4 | 1.3 |
| 4 | 1.7 | 1.3 |
| 5 | 3.0 | 3.1 |
| IC5904 | | |
| 1 | 1.4 | 1.3 |
| 2 | 0 | 0 |
| 3 | 0 | 0 |
| 4 | 0 | 0 |
| 5 | 0 | 0 |
| 6 | 0 | 0 |
| 7 | 1.3 | 1.3 |
| 8 | 3.0 | 3.1 |
| IC5952 | | |
| 1 | 1.3 | 0 |
| 2 | 0 | 0 |
| 3 | 3.1 | 3.1 |
| 4 | 1.4 | 1.4 |
| Q5001 | | |
| E | 10.5 | 9.9 |
| C | 14.9 | 15.0 |
| B | 0 | 10.6 |

<REAR>

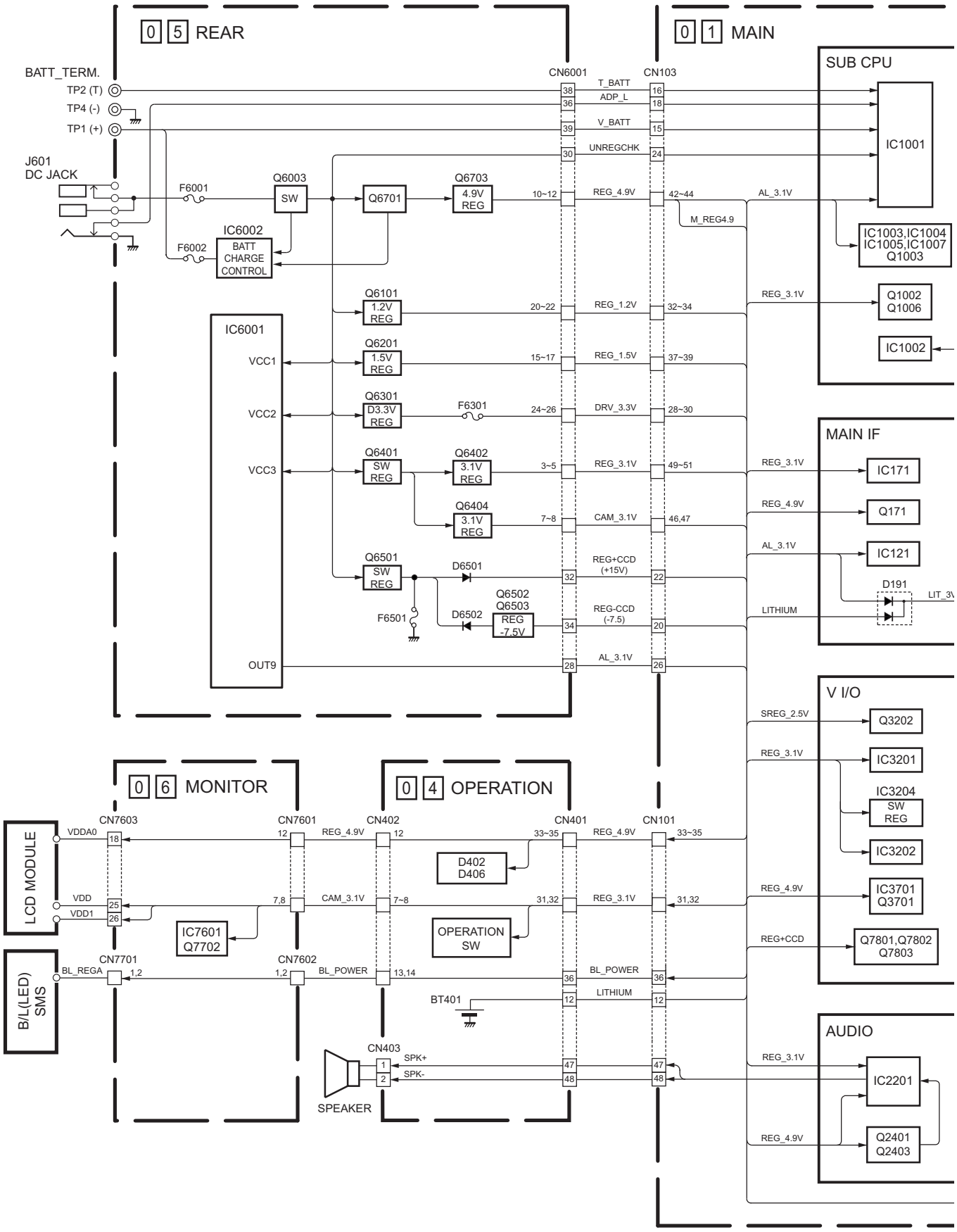
| MODE PIN NO. | REC | PLAY |
|---|---|---|
| IC6001 | | |
| 1 | 0 | 0 |
| 2 | 0 | 10.0 |
| 3 | 0 | 8.9 |
| 4 | 9.7 | 9.8 |
| 5 | 8.6 | 8.7 |
| 6 | 7.6 | 7.8 |
| 7 | 7.8 | 7.9 |
| 8 | 8.0 | 8.0 |
| 9 | 8.5 | 6.3 |
| 10 | 0 | 0 |
| 11 | 10.7 | 10.7 |
| 12 | 0 | 11.8 |
| 13 | 0 | 8.4 |
| 14 | 0 | 0 |
| 15 | 0 | 2.7 |
| 16 | 0 | 0 |
| 17 | 0 | 0 |
| 18 | 3.0 | 3.1 |
| 19 | 11.0 | 11.0 |
| 20 | 11.0 | 11.0 |
| 21 | 0 | 0 |
| 22 | 0 | 0 |
| 23 | 3.0 | 2.9 |
| 24 | 3.1 | 3.0 |
| 25 | 3.0 | 3.0 |
| 26 | 3.0 | 3.0 |
| 27 | 3.0 | 3.1 |
| 28 | 3.1 | 3.0 |
| 29 | 1.0 | 1.0 |
| 30 | 0 | 0 |
| 31 | 0 | 0 |
| 32 | 0 | 0 |
| 33 | 0 | 0 |
| 34 | 2.6 | 2.7 |
| 35 | 0 | 0 |
| 36 | 0 | 0 |
| 37 | 1.0 | 1.0 |
| 38 | 0.7 | 0.9 |
| 39 | 1.0 | 0.9 |
| 40 | 0.7 | 0.6 |
| 41 | 1.0 | 1.0 |
| 42 | 1.0 | 1.0 |
| 43 | 0.7 | 0.8 |
| 44 | 1.0 | 1.0 |
| 45 | 1.0 | 1.0 |
| 46 | 0.8 | 0.8 |
| 47 | 1.0 | 1.0 |
| 48 | 0.6 | 0.5 |
| 49 | 0.9 | 1.0 |
| 50 | 0.6 | 0.7 |
| 51 | 0.8 | 0.8 |
| 52 | 1.0 | 1.0 |
| 53 | 0 | 0 |
| 54 | 0 | 0 |
| 55 | 1.0 | 1.0 |
| 56 | 0 | 0 |
| 57 | 0 | 0 |
| 58 | 0 | 0 |
| 59 | 2.7 | 2.7 |
| 60 | 0 | 0 |
| 61 | 15.0 | 15.0 |
| 62 | 10.8 | 10.8 |
| 63 | 1.3 | 1.3 |
| 64 | 11.0 | 11.0 |
| IC6002 | | |
| 1 | 0 | 0 |
| 2 | 0 | 0 |
| 3 | 0 | 0 |
| 4 | 5.5 | 5.5 |
| 5 | 10.9 | 10.9 |
| 6 | 11.0 | 11.0 |
| IC6004 | | |
| 1 | 0 | 0 |
| 2 | 0 | 0 |
| 3 | 1.9 | 2.0 |
| 4 | 0 | 0 |
| 5 | 0 | 3.0 |
| Q6003 | | |
| 1 | 11.0 | 11.0 |
| 2 | 5.5 | 5.4 |
| 3 | 10.9 | 11.0 |
| 4 | 10.9 | 10.9 |
| 5 | 0 | 0 |
| 6 | 0 | 0 |
| 7 | 11.0 | 11.0 |
| 8 | 11.0 | 11.0 |
| Q6101 | | |
| S | 10.0 | 10.0 |
| D | 11.0 | 11.0 |
| G | 1.1 | 1.2 |
| Q6102 | | |
| S | 8.9 | 9.0 |
| D | 0 | 0 |
| G | 1.2 | 0 |
| Q6201 | | |
| S | 9.6 | 9.7 |

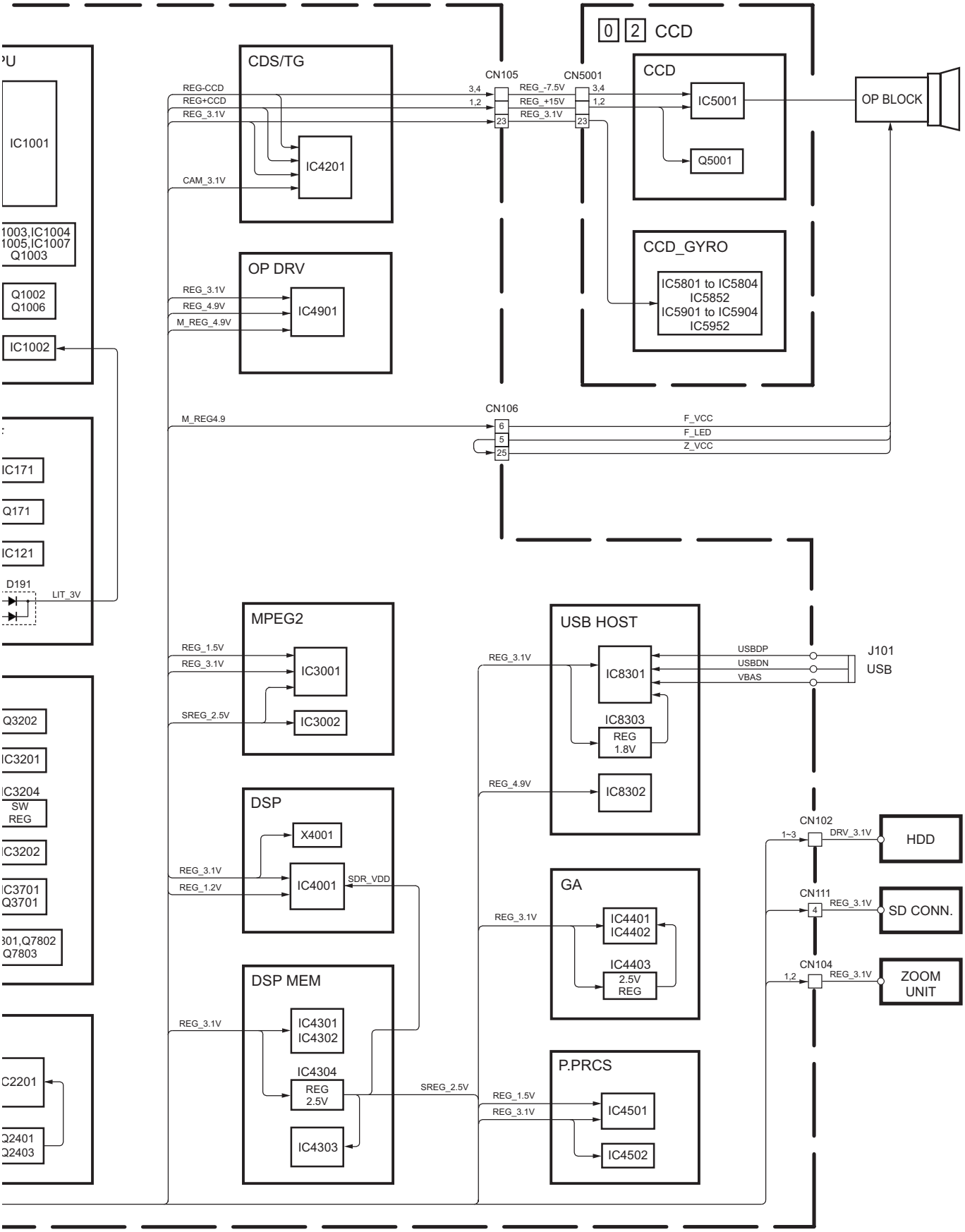
| MODE PIN NO. | REC | PLAY |
|---|---|---|
| D | 11.0 | 11.0 |
| G | 1.5 | 1.5 |
| Q6202 | | |
| S | 8.6 | 8.6 |
| D | 0 | 0 |
| G | 1.5 | 1.4 |
| Q6301 | | |
| S | 7.6 | 7.7 |
| D | 11.0 | 11.0 |
| G | 3.4 | 3.3 |
| Q6302 | | |
| S | 0 | 0 |
| D | 0 | 3.3 |
| G | 3.3 | 3.2 |
| Q6303 | | |
| E | 0 | 0 |
| C | 0 | 0 |
| B | 0.7 | 0.7 |
| Q6401 | | |
| S | 7.8 | 7.8 |
| D | 11.0 | 11.0 |
| G | 3.2 | 3.1 |
| Q6402 | | |
| S | 0 | 0 |
| D | 3.1 | 0 |
| G | 3.1 | 3.1 |
| Q6403 | | |
| E | 0 | 0 |
| C | 0 | 0 |
| B | 0.6 | 0.7 |
| Q6404 | | |
| S | 0 | 0 |
| D | 3.1 | 3.1 |
| G | 2.7 | 3.1 |
| Q6501 | | |
| S | 8.0 | 0 |
| D | 10.9 | 11.0 |
| G | 0 | 0 |
| Q6502 | | |
| E | -14.2 | 0 |
| C | 0 | 0 |
| B | 0 | -14.9 |
| Q6503 | | |
| 1 | 0 | 0 |
| 2 | -7.5 | -7.5 |
| 3 | 0 | 0 |
| 4 | 0 | 0 |
| 5 | 0 | -7.6 |
| 6 | -13.7 | -14.9 |
| Q6701 | | |
| S | 8.6 | 0 |
| D | 11.0 | 11.0 |
| G | 4.9 | 4.9 |
| Q6702 | | |
| S | 9.8 | 9.8 |
| D | 4.7 | 4.9 |
| G | 0 | 0 |
| Q6703 | | |
| S | 0 | 0 |
| D | 4.9 | 4.9 |
| G | 4.9 | 4.9 |

<MONITOR>

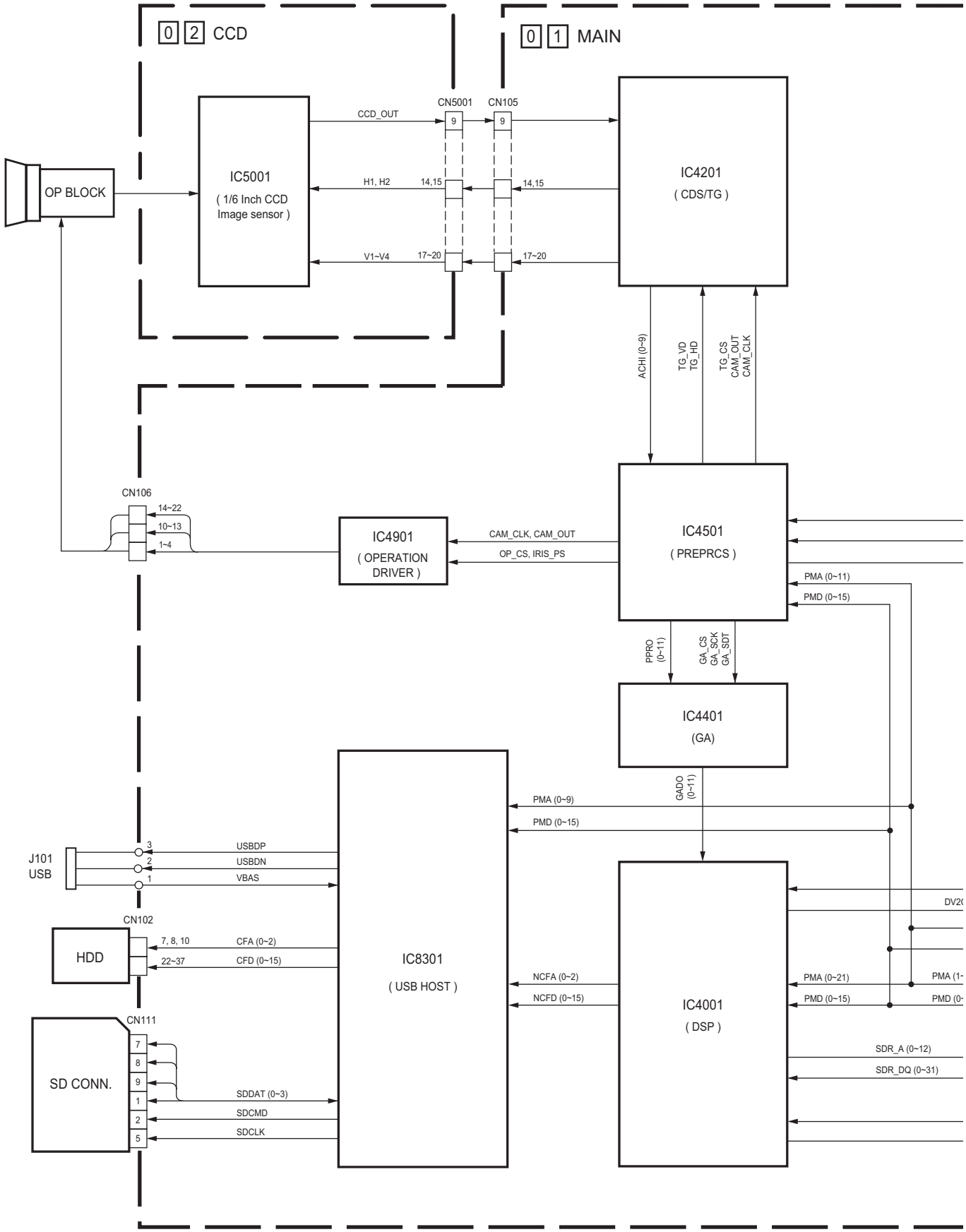
| MODE PIN NO. | DC |
|---|---|
| IC7601 | |
| 1 | 3.1 |
| 2 | 0 |
| 3 | 3.1 |
| Q7702 | |
| 1 | 0 |
| 2 | 3.0 |
| 3 | 3.0 |
| 4 | 3.1 |
| 5 | 0 |
| 6 | 0 |
| Q7703 | |
| 1 | 0.4 |
| 2 | 1.0 |
| 3 | 2.9 |
| 4 | 0.3 |
| 5 | 1.0 |
| 6 | 1.0 |

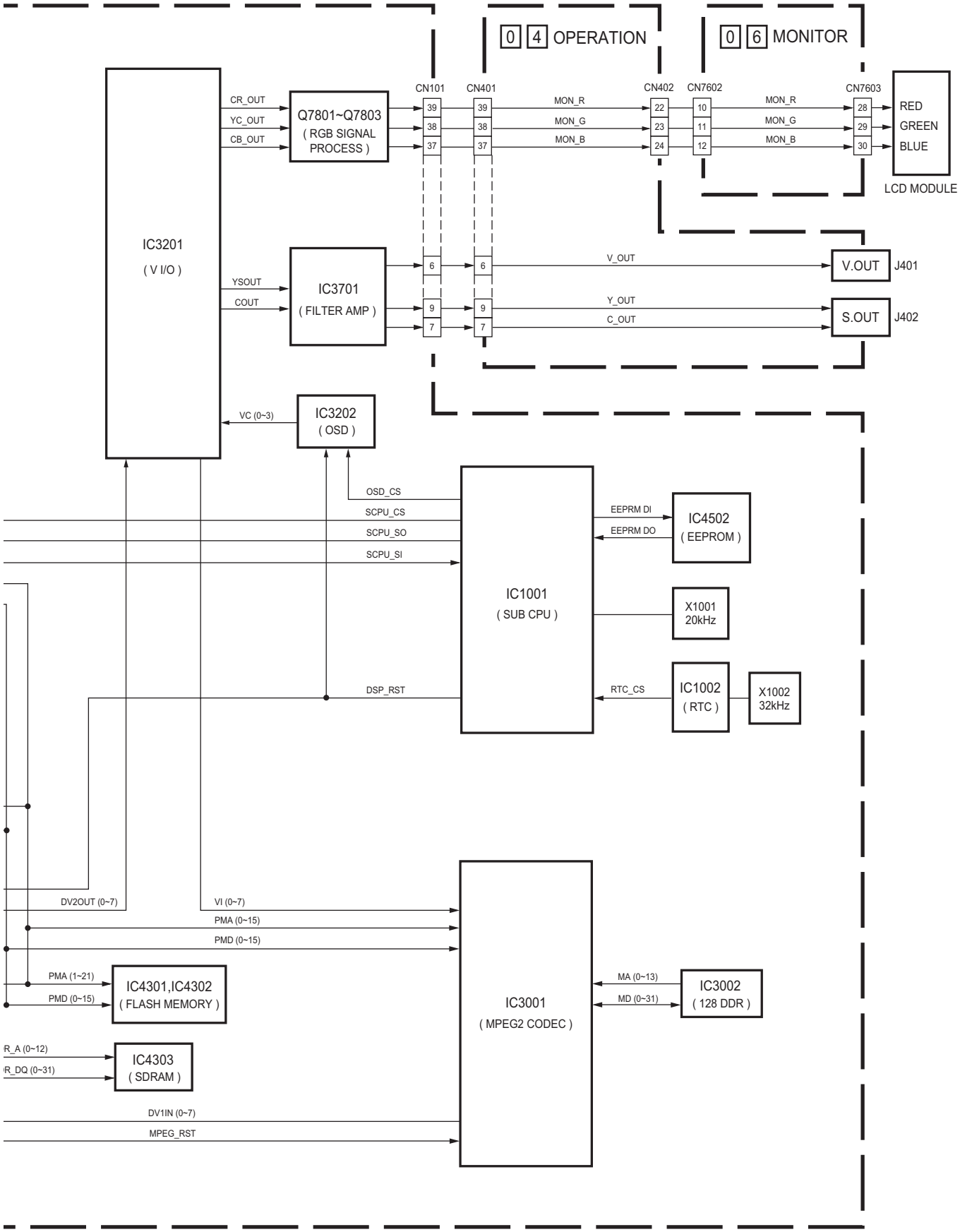
## ■ POWER SYSTEM BLOCK DIAGRAM




0 2 CCD
CDS/TG
IC4201
REG-CCD
REG+CCD
REG_3.1V
CAM_3.1V
CN105
CN5001
3,4
1,2
23
REG_-7.5V
REG_+15V
REG_3.1V
CCD
IC5001
Q5001
OP BLOCK
CCD_GYRO
IC5801 to IC5804
IC5852
IC5901 to IC5904
IC5952
OP DRV
IC4901
REG_3.1V
REG_4.9V
M_REG_4.9V
CN106
M_REG4.9
6
5
25
F_VCC
F_LED
Z_VCC
IC1001
IC1002
Q1002
Q1006
D191
LIT_3V
MPEG2
IC3001
IC3002
REG_1.5V
REG_3.1V
SREG_2.5V
DSP
X4001
IC4001
SDR_VDD
REG_1.2V
DSP MEM
IC4301
IC4302
IC4304
REG
2.5V
IC4303
USB HOST
IC8301
IC8303
REG
1.8V
IC8302
REG_4.9V
USBDP
USBDN
VBAS
J101
USB
GA
IC4401
IC4402
IC4403
2.5V
REG
P.PRCS
IC4501
IC4502
CN102
1~3
DRV_3.1V
HDD
CN111
4
SD CONN.
CN104
1,2
ZOOM
UNIT

## ■ VIDEO SYSTEM BLOCK DIAGRAM




0 4 OPERATION
0 6 MONITOR
IC3201
( V I/O )
CR_OUT
YC_OUT
CB_OUT
Q7801~Q7803
( RGB SIGNAL PROCESS )
CN101
CN401
CN402
CN7602
CN7603
MON_R
MON_G
MON_B
RED
GREEN
BLUE
LCD MODULE
YSOUT
COUT
IC3701
( FILTER AMP )
V_OUT
Y_OUT
C_OUT
V.OUT
J401
S.OUT
J402
VC (0~3)
IC3202
( OSD )
OSD_CS
SCPU_CS
SCPU_SO
SCPU_SI
IC1001
( SUB CPU )
EEPRM DI
EEPRM DO
IC4502
( EEPROM )
X1001
20kHz
DSP_RST
RTC_CS
IC1002
( RTC )
X1002
32kHz
DV2OUT (0~7)
VI (0~7)
PMA (0~15)
PMD (0~15)
PMA (1~21)
PMD (0~15)
IC4301,IC4302
( FLASH MEMORY )
IC3001
( MPEG2 CODEC )
MA (0~13)
MD (0~31)
IC3002
( 128 DDR )
R_A (0~12)
R_DQ (0~31)
IC4303
( SDRAM )
DV1IN (0~7)
MPEG_RST

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